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*Notified in G.O.'s, dated 31st March, 1943*

**St. Joseph's College S/Cadet Detachment**



# **Small Arms Training**

**Volume I—Pamphlet No. 3**

## **RIFLE**

**1943**

**AUSTRALIA**

**(This Publication Cancels Previous Editions)**

By Authority: D. W. PATERSON CO. PTY. LTD., 495 Collins St., Melbourne, C.I.



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VI—Quickening and Strengthening Exercises  
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## INTRODUCTORY

"The job of all supporting weapons is to bring the infantryman with his bayonet, to deal with the other fellow.

"You have to bring to bear all the weight of fire from the long-range gun, the heavy, medium and light machine guns, the mortars, to the sub-machine gun which pours out a mass of fire at short range.

The RIFLE and BAYONET are the final deciding factor if the enemy has not 'cracked up' previously."

—Gen. Sir Thomas Blamey.

## SAFETY FIRST

Before each period of instruction is commenced, the instructor will ensure that rifles, drill cartridges, and pouches are inspected. He will also demonstrate the safety of his equipment to his squad.

Under no circumstances will the "safety inspection" be omitted. It should, therefore, develop into an instinctive routine on the part of all personnel concerned, at all times.

Drill cartridges will never be used when using the aiming disc or when firing at another man's eye.



## GENERAL

1. Characteristics.—When cared for and handled correctly, the rifle is :—

- i. Capable of a high rate of accurate fire.
- ii. Suitable, with the bayonet, for hand-to-hand fighting.

2. Service standard.—Instruction in this pamphlet is designed to make the soldier :—

- i. A steady and accurate shot.
- ii. A quick shot at targets appearing at short and indefinite intervals, i.e., a snapshot.
- iii. A handyman with the rifle able to fire accurately at a rapid rate.

3. Experience gained since the beginning of the war has shown that weapon training instruction can be simplified by teaching RECRUITS only detail which is essential. This allows all periods allotted to weapon training to be spent on essential instruction and enables instructors, who have less to teach, to become more proficient.

It will be appreciated, however, that personnel being trained as potential Weapon Training Instructors, will receive adequate instruction in all phases associated with the weapons concerned, and at the same time understand what modifications will be necessary when instructing Recruits.

Where modifications to existing Lessons are considered desirable for instruction of Recruits, a Note to that effect has been inserted in the "Instructor's Notes" of the Lesson concerned.

## SECTION 1.—MECHANISM AND CLEANING

(Lessons 1 to 5)

1. Object.—To teach the soldier from the beginning of his service that he must take proper care of his weapons so that they are in working order at all times.

2. Scope.—Only such mechanism as is required for the care and maintenance of the rifle is included. Further knowledge may be obtained from the Text Book of Small Arms. (Certain details concerning service rifles are included in Appendix IV.)

## LESSON 1.—MECHANISM AND TRIGGER PRESSING

### *Instructor's Notes*

This lesson will be taught immediately after the rifle is issued to the recruit.

Name each part of the rifle as dealt with.

Explain paragraphs 1 and 2 (General) above.

Personnel seated on forms or ground, with rifle held in a comfortable position, muzzle upwards.

Paras. 10 and 11 are not essential for Recruit instruction. Knowledge of the components should enable the action to be reasoned out.

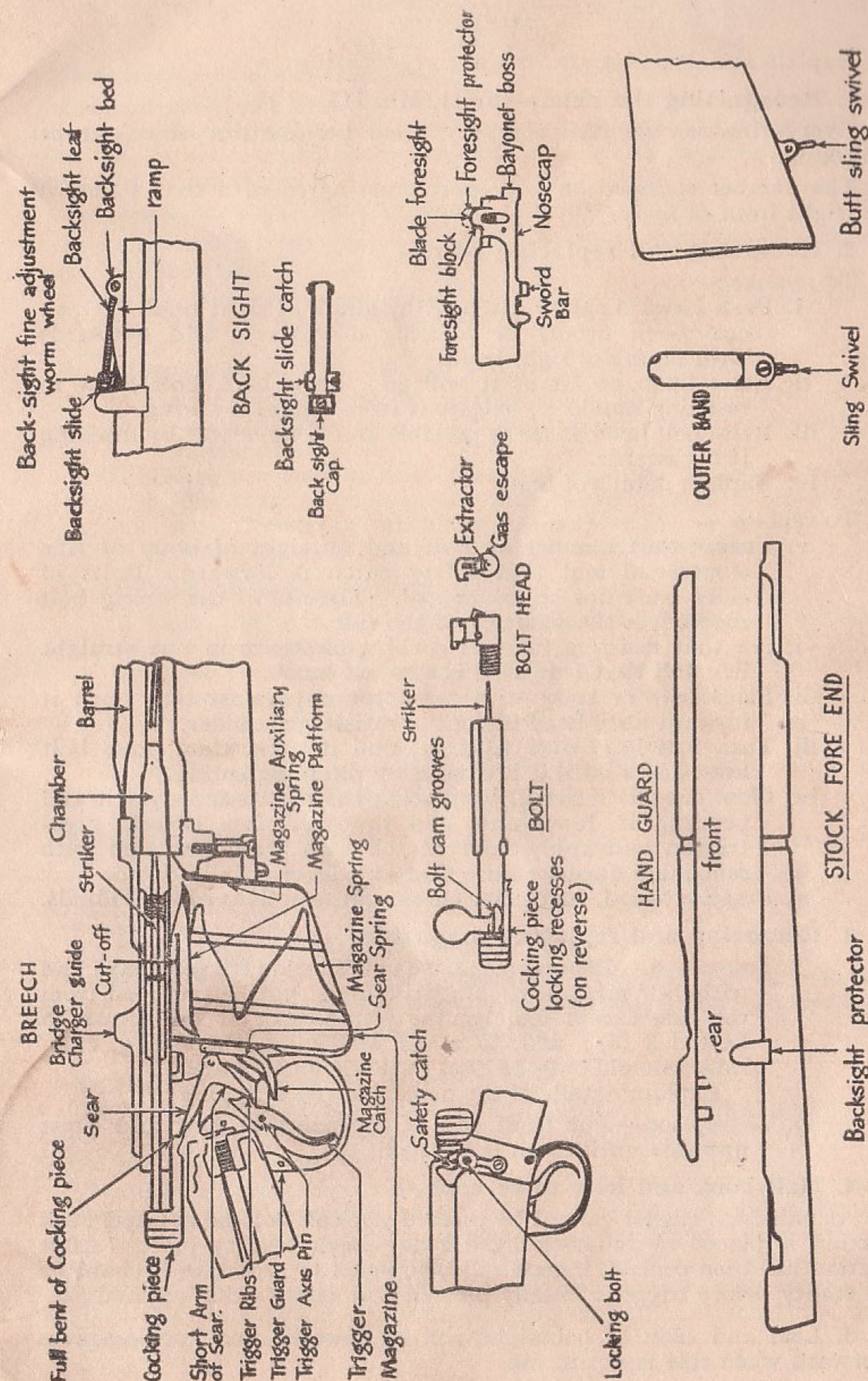


FIG. 1—RIFLE No. 1, MARK III. or III.\*



## MECHANISM

Explain and demonstrate with squad imitating :—

### 1. Recognising the rifle.—(No. 1, Mk. III. or III.\*).

Every rifle can be recognised by some peculiarities of colour or marking.

The number stamped on bolt lever must agree with that stamped on right front of body.

### 2. Removing and replacing bolt.—

To remove :—

- i. Push forward safety catch with thumb of right hand. Open cut-off (if fitted) by pressing downwards and outwards with thumb of right hand.
- ii. Raise knob as far as it will go ; draw back bolt head to resisting shoulder ; release it from retaining spring.
- iii. Raise bolt head as far as possible and remove bolt by drawing it backwards.
- iv. Explain details of bolt.

To replace :—

- v. Ensure that number on bolt and on right of body of rifle correspond and that safety catch is forward. Bolts of rifles must not be exchanged. The use of the wrong bolt may affect the accuracy of the rifle.
- vi. See that resisting lug and cocking-piece are in one straight line and that bolt head is screwed home.
- vii. Place bolt in body with extractor uppermost and push it forward until head is clear of resisting shoulder.
- viii. Turn bolt head over to right, pull it back, then press bolt head down until it is caught by retaining spring.
- ix. Close cut-off (if fitted) by placing the right hand over it and pressing it downwards and inwards, close breech, press trigger, and apply safety catch with forefinger, and with remaining fingers ensure that bolt lever is fully down.
- x. Practise squad, Instructor checking the actions of individuals.

### 3. Removing and replacing magazine.—

- i. To remove.—Depress magazine catch inside trigger guard and withdraw magazine. Magazine must not be removed from the rifle except for cleaning purposes or as laid down in Lesson 3 (4) ; and, to avoid weakening the spring, cartridges should only be kept in it when necessary.

Explain details of the magazine (no stripping).

- ii. To replace.—Put front end of magazine in first and press upwards until catch is engaged.

### 4. Half-cock and how to re-cock.—

At half-cock trigger cannot be pressed nor can bolt be rotated until action is placed at full-cock by drawing back cocking-piece. After action has been cocked, breech will be opened to ascertain if chamber is empty before trigger is finally pressed and safety catch applied.

5. Leaf and slide of backsight will be lowered and cocking-piece forward when rifle is not in use.

## TRIGGER PRESSING

### Instructor's Notes

*Individual instruction is necessary to teach trigger pressing.*

*Demonstrate in the correct position each phase and seat squad so that they can imitate correctly (i.e., both elbows on a table and butt into shoulder ; if a table is not available, personnel will be seated on the ground, elbows supported by the thighs).*

*Test trigger action of all rifles for two pressures.*

*Test each man's trigger finger to see that it can be moved freely without disturbing the grip.*

*When a recruit cannot understand the two pressures, demonstrate them by placing the hand over that of the recruit.*

### 6. Importance of and aids to trigger pressing.—

- i. Unless trigger is pressed correctly, bad shooting will result.
- ii. Physical fitness, with determination and good nerve-control is essential.
- iii. There are two distinct pressures required to fire the rifle. The first is taken as the butt comes into the shoulder to aim, the second when the aim is correct.
- iv. A firm grip with both hands must be maintained.

### 7. Method of trigger pressing.—

- i. Cock the action. Grip with right hand, forefinger outside trigger guard.
- ii. Raise butt into shoulder, at the same time put first joint of forefinger on trigger. Do not aim or lower head to butt.
- iii. Press or squeeze across the small of the butt in the direction of the thumb, until the first pressure is taken.
- iv. Without relaxing grip, restrain breathing and continue to squeeze until second pressure is taken.

### 8. Give conditions of test.

9. Squad practise individually, Instructor testing by placing finger on trigger under that of Recruit's, Instructor being on left of rifle.

### 10. Action on pressing trigger.—

On taking second pressure, cocking-piece is released and mainspring carries forward striker, which is attached to cocking-piece. Striker hits cartridge cap, which explodes the charge.

### 11. Action on opening breech.—

When bolt is fully forward, i.e., breech closed, extractor grips rim of cartridge. When bolt is pulled back, extractor draws empty cartridge case back until it is ejected.

*Note.*—The Instructor must impress on the Recruit that correct holding and trigger pressing are two main factors in accurate shooting. Inaccurate shooting is also produced by "over-restraining" the breathing whilst taking the final pressure. When Lessons 6 and 14 have been completed, Recruits should be encouraged to practice (with an empty rifle) correct holding, aiming, and trigger pressing. Constant practice will result in confidence and control.



## LESSON 2.—CLEANING MATERIALS AND DAILY CLEANING

### *Instructor's Notes*

*Lessons 2 and 4 will be taught as one lesson in Recruit instruction, though not necessarily in one period.*

*Stores.—All cleaning materials.*

Explain and demonstrate with squad imitating.

### 1. Materials.—

No material other than that issued from store will be used to clean the rifle.

- i. *The pull-through.*—Used to clean the bore, will be kept in the butt-trap of the rifle. It has three loops. That nearest the weight is for wire gauze. The middle loop is for flannelette; the loop at the end is for use by the armourer so that the pull-through can be removed from the bore should it break or jam.

Before using it, run the cord through the fingers to straighten and remove grit; insert flannelette in the correct loop. Drop the weight through the bore from the breech end. Hold the rifle firmly at the muzzle, and do not put the butt plate on stone or concrete. Pull the cord, in one motion, straight through so that it does not touch the muzzle of the bore. If the cord rubs against the muzzle, it will make a groove known as cordwear, and the accuracy of the rifle will be spoilt.

When a pull-through is fitted with a wire gauze (see Lesson 4), a soldier may obtain the assistance of a comrade to hold his rifle. The owner is, however, responsible for avoiding cordwear.

The pull-through will be packed in the butt-trap as follows: hold the pull-through (loop end) between the forefinger and thumb, so that the end falls about two inches below the third finger; roll it loosely once round the fingers. Slip the coil off the fingers and twist the remainder of the cord tightly round it, leaving sufficient to allow the weight to drop easily into the recess made for it in the butt. Push the cord into the trap, leaving the loop end uppermost and close the trap.

- ii. *Flannelette, oil and oil bottle.*—To clean or dry the bore, a piece of flannelette 4 inches by 2 inches will be used.

To oil the bore, the size will be 4 inches by 1½ inches with oil well rubbed in. If a larger piece is used the oil is squeezed out of the flannelette as it enters the bore.

The oil bottle is carried in the butt trap.

### 2. Examination of the bore.—

Hold the muzzle close to the eye and look into the bore, but not through it. Draw the eye back gradually looking for rust and fouling. Examine the chamber from the breech end.

### 3. Daily cleaning.—

The bolt magazine and sling will be removed and put in a clean

place. No further stripping is allowed, and no screws may be loosened or tightened by N.C.Os. or men.

The bore will be pulled through with dry flannelette until clean, and then oiled. This is particularly important for a period of four or five days after firing, unless anti-corrosive oil has been used.

The exterior of the rifle will be cleaned with an oily rag. Attention will be paid to the gas escapes and crevices.

The working parts will be oiled.

Unnecessary rubbing of the browned parts of the rifle will be avoided. Browning prevents rust.

In dusty climates, working parts will be kept dry. Muzzle and breech covers may be issued, but anything in the nature of a plug for the muzzle is forbidden.

### 4. Practise squad.

*Note.*—The Instructor must impress on Recruits the vital necessity of the correct maintenance of the weapon under all circumstances. The time spent and the attention given will produce the results required. Even under the most trying conditions of modern operations, well-trained troops have succeeded in maintaining their rifles in a satisfactory condition.

**A dirty rifle is a sure indication of an inefficient soldier.**

## LESSON 3.—LOADING AND UNLOADING

### *Instructor's Notes.*

*Personnel should be seated, preferably on the ground, rifle held in any comfortable position, muzzle upwards.*

*Para. 9 is not essential for Recruit instruction.*

Instructor demonstrates the correct filling of a charger.

Explain and demonstrate with squad imitating:—

### 1. To load.—

- i. Push forward safety-catch.
- ii. Open cut-off (if fitted).
- iii. Open breech and pull bolt back to its full extent.
- iv. Take a charger between thumb and first two fingers of right hand, and place it vertically in guides.
- v. Place ball of the thumb on top cartridge immediately in front of charger, hook forefinger under cut-off, force cartridges down with a firm and continuous pressure until top cartridge is clear of charger and has engaged in magazine. If there is no cut-off, hook fingers under woodwork. Repeat with another charger, making sure that the top round is in the magazine.
- vi. Force bolt sharply home with thumb and forefinger, turning knob fully down, and with forefinger of right hand turn safety-catch completely to rear, ensuring at the same time, by means of the remaining fingers, that bolt-lever is fully down. Button up pouch.

*Note.*—When rifles are required to be loaded with a less number of rounds, *i.e.*, Range Practices, the number of rounds will be stipulated, *e.g.*, "5 rounds, Load," etc.



## 2. To unload.—

- i. Push safety catch forward, draw back bolt, work it rapidly backwards and forwards to its full extent without turning knob down, until all cartridges are removed from magazine and chamber.
- ii. Close cut-off by placing right hand over body and pressing inwards, then close breech, press trigger and apply safety-catch.

## 3. Practise squad.

Instructor checking actions of individuals.

## 4. Alternative method of unloading.—

Sometimes necessary on service, *e.g.*, for cleaning purposes; normal method under conditions of darkness, or in a muddy or dusty position.

Remove magazine, open breech, then secure round from chamber with fingers of left hand. Allow it to fall through magazine opening into palm of left hand. Close cut-off (if fitted) and breech. Press trigger and apply safety catch. Empty magazine and replace it in rifle.

## 5. Practise squad, Instructor checking actions of individuals.

## 6. Charging magazine.—

- i. Sometimes for safety reasons, *i.e.*, anti-aircraft, guard duty, patrols, etc., it is necessary to charge magazines without allowing a round to enter chamber. The order for this will be "Charge magazine."
- ii. On this order, load, press down top cartridge; close cut-off. If there is no cut-off, hold top cartridge down with thumb of right hand and draw bolt head over top cartridge with little finger. Then close breech, press trigger, apply safety catch, button up pouch.

## 7. Loading when magazine is already charged.—

Push forward safety catch. Open cut-off (if fitted). Open and close breech and apply safety catch.

## 8. Practise squad, Instructor checking actions of individuals.

## 9. Jams and remedies.—

In peace, if immediate action does not remedy a jam, the rifle will be taken to the armourer.

Jams seldom happen but may be caused by:—

Faulty handling of the bolt—the fault of the soldier.

Dirt or oil in the magazine—neglect by the soldier.

Dirty, damaged or defective ammunition.

Badly filled chargers.

Worn or damaged parts.

- i. *No round enters the chamber.*

Draw back bolt.

Press rounds into magazine and release them suddenly.

Tap bottom of magazine sharply.

- ii. *Damaged lips of magazine.*

On service, lever up lips with a round of ammunition.

- iii. *Misfire.*

Reload.

- iv. *Badly filled charger.*

Load with fresh charger.

- v. *Sand in cam grooves of bolt.*

Draw cocking-piece fully to rear, raise bolt lever, remove bolt and clean.

## LESSON 4.—CLEANING, BEFORE AND AFTER FIRING

### *Instructor's Notes*

*Lessons 2 and 4 will be taught as one lesson for Recruit instruction, though not necessarily in one period.*

*Stores.—Chamber cleaning stick.*

*Wire gauze for each man in squad.*

*Flannelette.*

Explain and demonstrate with squad imitating.

### ADDITIONAL CLEANING MATERIALS

#### 1. Chamber cleaning stick.—

Place a piece of dry flannelette in the slot, and wind it round the stick to ensure that the latter is covered. Insert the stick into the chamber through the bolt way, and turn it round several times.

This is the only satisfactory method of cleaning the chamber.

## WIRE GAUZE FOLDED (Section)



## ON PULL-THROUGH

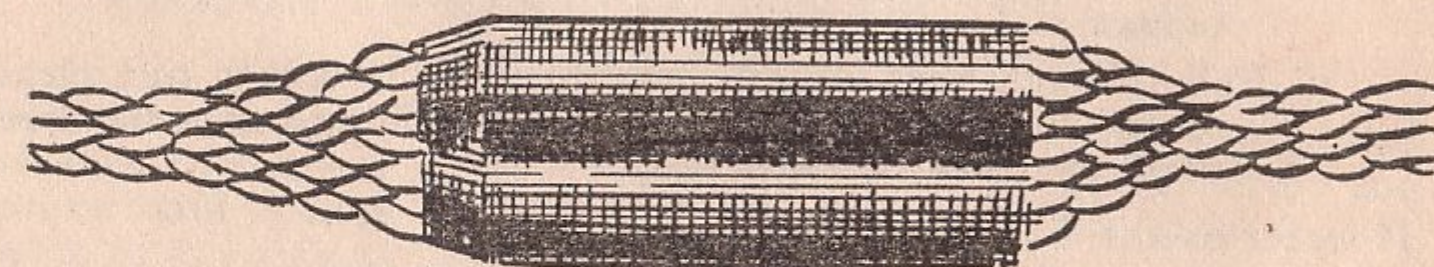


FIG. 2.

2. Wire gauze, in pieces  $2\frac{1}{2}$  by  $1\frac{1}{2}$  inches will, during the war period, be kept fitted to the pull-through. It is essential that the gauze be correctly attached.

The method of attaching it to the pull-through is as follows:—

Fold the gauze as in Fig. 2 so that the longer sides take the form of an "S."

Open the first loop of the pull-through and put one side of it in each loop of the "S."



Coil each half of the gauze tightly round that portion of the cord over which it is placed until the two rolls thus formed meet.

Oil the gauze before use, and remove loose strands of wire. These might scratch the bore. The gauze must fit the bore tightly and will, if necessary, be packed with a small piece of flannelette. The packing used should be removed when oiling the bore.

#### STRIPPING

### 3. Removing and replacing magazine platform.—

*To remove.*—Press down wide end until narrow end is disengaged from front lips. Remove platform.

*To replace.*—Insert wide end under rear lips and press it down until narrow end engages under front lips.

#### CLEANING BEFORE FIRING

### 4. The following details must be performed :—

- i. Remove oil from bore and chamber with dry flannelette.
- ii. Dry face of bolt and make sure that gas escapes are clear.
- iii. Oil action slightly, except in dusty countries, where it should be kept dry.
- iv. Test working of magazine platform.

#### CLEANING AFTER FIRING

5. The explosion of the charge in the cartridge leaves a deposit in the bore, which hardens and rusts unless quickly removed. This deposit is known as "fouling" and appears for several days after firing. Water (preferably boiling) poured through the barrel helps to remove fouling by dissolving the deposit, and should be used after firing.

The method of cleaning after firing any type of ammunition is :—

- i. Pull through with dry flannelette.
- ii. Pour 5 or 6 pints of water through bore from breech end, using a funnel. Avoid spilling water between barrel and fore-end.
- iii. Dry bore with flannelette and oil it. This helps subsequent removal of fouling.
- iv. Clean remainder of rifle, including chamber and inside of magazine.
- v. Pull through with dry flannelette until it comes out clean, oil the bore, first ensuring, if hot or boiling water has been used, that the barrel is cool.

If water or anti-corrosive oil are not available—

- i. Pull through with dry flannelette.
- ii. Oil bore.
- iii. Pull through with wire gauze and clean as in para. 5, iv. and v.

*Note.*—If anti-corrosive oil is available, its use will obviate the above action with water.

#### GENERAL PRECAUTIONS

6. To prevent rust, barrels will always be kept oily except :  
Immediately before firing.  
At rifle inspections, as ordered.

7. After firing blank ammunition, rifle will always be cleaned before firing ball ammunition.

### 8. ACTION DURING AND AFTER GAS ATTACK.

*This part of the lesson will be taught after the Recruit has been instructed in defence against gas.*

#### During—

To keep weapon in working order, all parts should be well oiled.

#### After :—

If splashed with blister gas, weapon must be decontaminated as follows :—

- i. Rub anti-gas ointment into the hands ; leave a visible film of ointment on the hands.
- ii. Unless the sling is heavily contaminated it should remain on the rifle, all free liquid being removed with a swab, and ointment applied to the contamination on both sides of the sling.
- iii. Remove all free liquid from the rifle with any available swab (grass, etc.). The personal issue of cotton waste should not be used.
- iv. Rub the contaminated portions of the rifle with ointment vigorously. The ointment should be rubbed well into the woodwork.
- v. Remove ointment from the metal parts of the rifle with a swab and re-oil. Do not remove ointment from the woodwork.
- vi. Wipe off surplus ointment from the hands with cotton waste, then rub more ointment into the hands for half a minute.

### 9. Ammunition.—

All free liquid should be swabbed off and the ammunition used as early as possible.

### 10. Practise and question squad.

## LESSON 5.—EXAMINATION OF THE RIFLE

*(For Officers and N.C.Os. only)*

All officers and N.C.Os. must possess a thorough knowledge of the inspection and care of rifles. Young officers will be instructed by the armourer and N.C.Os. by a qualified instructor in the various components of the rifle as below :—

- i. With the barrel dry, examine it for rust, cuts, bulges and fouling.
- ii. Foresight ; that blade is not deformed and that nose cap is not loose.
- iii. Backsight for firmness ; that it is not bent ; that slide moves smoothly ; that thumb-piece and fine adjustment worm work freely, and engage in rack on side of leaf ; and that "U" is not deformed.
- iv. Magazine ; that it is not dented, and that platform works freely ; also magazine catch and auxiliary spring.



- v. Bolt; that it bears same number as body; that striker is not screwed beyond end of cocking-piece; also that striker keeper screw is not broken and is in its proper position; and that bolt works smoothly.
- vi. Striker point; that it is correct shape and projects sufficiently through face of bolt head; also extractor and spring.
- vii. Cocking-piece; for firmness on striker, that bents are in good condition.
- viii. Sear; that it holds cocking-piece back securely when bolt is driven forward sharply to closed position.
- ix. Safety catch and locking bolt; that safety catch engages in camway of bolt and locks it; that it does not move too easily; and that cocking-piece is withdrawn slightly to rear when locking bolt is applied, whether it is at "full cock" or "fired" position.
- x. Cocking-piece and striker; that they fly forward freely on pressing the trigger. Test two pressures of the latter.
- xi. Stock, fore-end and butt; general condition and butt not loose.

## SECTION 2.—AIMING INSTRUCTION

(LESSONS 6 TO 12)

1. *Object*.—To teach the soldier to aim correctly at any target.
2. *Aids*.—Full use will be made by instructors of diagrams on paper, blackboard or ground, to illustrate rules and explain faults.
3. *Standard of accuracy*.—There is only *one correct aim at any target* and it is essential to insist on accuracy at all times. In the early stages, targets are provided with clearly defined aiming marks, and are replaced by service targets as progress is made. Experience compensates for the difficulty of aiming in the later stages. Aiming and trigger pressing will be tested constantly throughout the training, and sights inspected to see that they are adjusted as ordered.
4. *Aim corrector*.—When used, the aim corrector will be placed on the rifle behind the backsight with the reflecting glass to the left, sights being raised to 400 yards to give a clear view. (See diagram in Appendix V., which shows the reflecting glass to the right.)
5. *Corrections to elevation or point of aim*.—Until a soldier has reached a stage in his training enabling him to fully appreciate the influence of his grouping capacity on his shooting performance, any corrections with regard to elevation or point of aim when firing practices must be left to the discretion of a competent coach (see Pamphlet No. 1, Appendix II). It must be impressed on the soldier that the instruction in Lesson 10 is designed solely to teach him how to make corrections to his elevation.

## LESSON 6.—ACCURACY OF AIM

*Instructor's Notes*

*Stores*.—Grouping target fixed at 100 yards. (Target to be in a good light.)

Where facilities do not permit of a Grouping target being used at 100 yards, a scaled-down replica may be used at a suitable distance.

*Aiming rests, tripods and sandbags.*

*Paper and pencil.*

*Para. 4 of this Lesson is not essential for Recruit instruction.*

*Lessons 6 and 7 will be taught as one Lesson in Recruit instruction, though not necessarily in one period.*

*When checking an aim, the eye must be in the correct position and head rested. If the aim is found to be incorrect, make the man look at it again; if he sees it is wrong, let him lay another, but if he still thinks it is correct, convince him that it is incorrect. This may be done by holding a piece of white paper in front of the muzzle; the man is then told to move his head until the top of the foresight is in line with the shoulders and in the centre of the "U" of the backsight. The paper is then removed quickly, and replaced after a short pause, when the man is asked where his aim was directed.*



Common faults in aiming and their effects will be explained as they arise :—

*Taking too much or too little foresight in the "U" of the backsight, causing the bullet to strike high or low respectively.*

*Inaccurate centring, i.e., failure to get the blade of the foresight in the centre of the "U" of the backsight, causing the bullet to be directed to the right or left according to the error.*

*Looking at the sights rather than the aiming mark. This will cause the aiming mark to become blurred and thus make the firer lose sight of a small target.*

*Inclining the backsight to one side. This, if exaggerated, will cause the bullet to strike on the side to which the sights are inclined and may cause it to go low.*

Instructor examines the sights of all rifles in the squad.

### 1. Sight setting.—

i. Explain that sights are placed on the rifle in order to give both direction and elevation.

ii. Explain and demonstrate with squad imitating :—

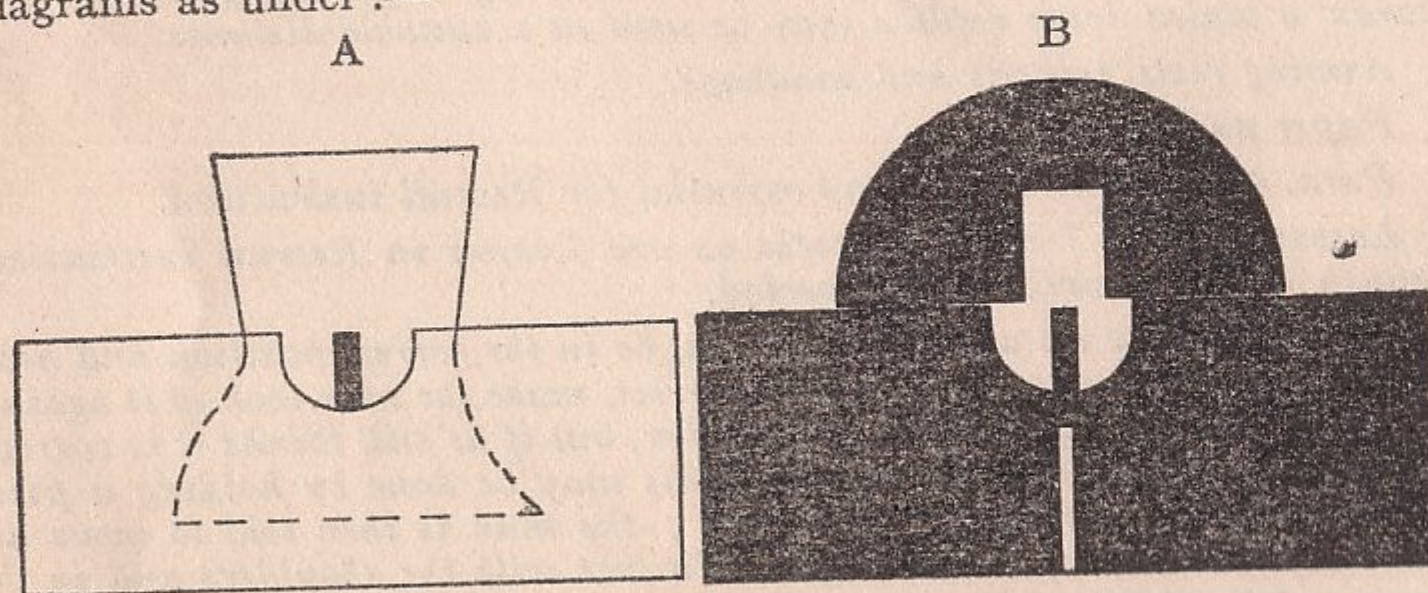
*Adjustment of backsight.—Hold rifle in a convenient position. With thumb of left hand press in stud on side of backsight. Move slide till line on it is even with mark on leaf giving elevation for distance named. Ensure that slide is firmly fixed. Alterations will be made in 100 and/or 50 yards.*

*To adjust slide.—If, when sights are set at 200 yards, it is found that line on slide does not exactly agree with mark on leaf, then adjust it by the following method. Press stud on slide with thumb of left hand until worm wheel can be easily revolved; turn worm wheel with thumbnail of right hand, until lines agree. Stud must not be pressed to such an extent that worm wheel is entirely disengaged from rack.*

iii. Give conditions of test.

iv. Practise squad by word of command. Alterations ordered will be in multiples of 50 yards.

2. The rules of aiming.—Teach the three rules of aiming, using diagrams as under :—



i. The backsight must be kept upright.

ii. Close the left eye. (If it is impossible for the man to shoot from the right shoulder, then the right eye will be shut).

iii. Look at the target. Direct the sights at the centre of it by aligning the top of the foresight in the middle of the "U" and in line with the shoulders of the backsight. (In using a target where an aiming mark is provided, aim will be directed at the lowest centre portion of such mark.)

### 3. The correct aim.—

i. Demonstrate a correct aim. Point out that the elbow and head is rested and the eye over the heel of the butt.

ii. Each man views the aim.

iii. Show how to arrange kit required, one leg of tripod rest toward target.

iv. Practise squad. Men lay aims; deal with faults as they occur.

4. Elevation.—Give example of elevation, such as "fire-hose" and illustrate with two rifles by removing bolts and laying aims—sights being adjusted to 200 and 1,000 yards respectively. Let each man view aims and look through the bores, instructor bringing out the following :—

i. Sights 200.—Sights and bore are pointing at the mark.

ii. Sights 1,000.—Sights on mark, barrel elevated to allow for fall of bullet.

*Note.—When potential Weapon Training Instructors are being trained, the Instructor should demonstrate how improvised arrangements (sandbags, greatcoats, turf, etc.) can be utilised in lieu of normal aiming rests, etc.).*

## LESSON 7.—AIMING AT TARGETS AT SERVICE DISTANCES

### Instructor's Notes

#### Stores.—

*Small and large targets fixed at distances of 200 yards to 500 yards.*

*Silhouette figure targets fixed at distances up to 500 yards.*

*Where facilities do not permit of distances of 200 to 500 yards being obtained, shorter distances may be introduced, and a representative target at 25 yards may be used.*

*Sights will always be adjusted to the range at which aiming is taking place.*

*In aiming at silhouette figures, the aim will be considered correct if it is approximate to the centre of the target.*

*Para. 1 is not essential for Recruit instruction; a diagram of a correct aim should suffice.*

#### 1. Accuracy of aim at small and large targets.

i. Lay a correct aim at nearest target and let each man view it.

ii. Give conditions of test.

iii. Practise squad at each target and explain faults as they occur.

#### 2. Aiming at silhouette figure targets.—

i. Refer to third rule of aiming and show diagram; point out that there is no aiming mark on silhouette figure targets.

ii. Give conditions of test.

iii. Practise squad, and explain the effect of faults as they occur.



## LESSON 8.—AIMING AT GROUND.

### *Instructor's Notes*

To obtain full value this lesson must be done on the ground. If this is not possible, landscape targets may be used.

#### *Stores.—*

Aiming rests, tripods, sandbags, signalling flag (and landscape targets when required).

When two fatiguemen are available they will be used in 4 below and will be rehearsed to appear at pre-arranged places for a few seconds and then disappear on signal. Select four positions.

1. Explain that the eyesight must be gradually trained in aiming at service targets other than figures, such as features on the ground where it is thought that an enemy is concealed; mention likely places at which an aim would be taken. The lesson is therefore a direct link with Visual Training.

2. Point out an arc and indicate, by description, features on the ground, e.g., positions which the enemy may occupy, cover likely to be used, and open spaces or gaps which the enemy will have to cross. Indicate a point of aim if the object is large.

3. Squad aims (rifles on aiming rests). Instructor checks.

4. Arrange for two fatiguemen to be in the arc, and that on a given signal one man at a time shall get up and advance to a suitable piece of cover, where he will remain under cover until he is signalled to adopt a service position, as if firing at the squad. These men will make three or four advances or withdrawals on similar lines.

5. Squad (with rifles on aiming rests) watch the front. One man is signalled to appear between 100 and 300 yards and, after advancing to disappear. After a pause order "Aim."

6. Squad aims at the spot where they think the man disappeared.

7. Signal man to show himself in a service position. Check aims. Aim to be at ground line.

8. Introduce the use of an "aid" to memorise the exact spot where the man has disappeared; i.e., fatiguer advances and goes to cover. After a short pause, the squad is ordered to turn about, a pause (dependent on the difficulty of recognition of the point) is then made and the order "Aim" given. The selection of a prominent object on the ground, either between the firer and the spot on the ground or beyond it, which is in the same line of direction, is a valuable aid.

9. Practise squad. Introduce gradually more difficult aiming points from 200 to 500 yards.

## LESSON 9.—ELEMENTARY AIMING OFF FOR WIND

### *Instructor's Notes*

Paras. 1, 4 and 5, and Note, sub-paras. (a), (b), and 4 are not essential for Recruit instruction.

#### *Stores, etc.—*

Aiming rests, tripods and sandbags.

*Classification targets (representative targets where necessary); auxiliary aiming marks and marking discs.*

*One or more assistants.*

*Signalling Flag.*

### 1. Targets.—

Explain:—

i. Size of targets, i.e.—

Small target, 4-ft. by 4-ft.

Large target, 6-ft. by 6-ft.

Large snapshotting, 22 inches.

ii. Dimensions of scoring areas, i.e.—

Small and large targets showing bull, inner, magpie and outer.

Snapshotting target—the whole target as a scoring surface, with a 12-inch central circle.

iii. Method of signalling.—

Demonstrate, using a target and signalling disc, the method of signalling bull, inner, magpie, outer and miss, and the marking of a bull and inner on a snapshotting target.

(See Pamphlet No. 1.)

### 2. Explain.—

i. The necessity for aiming off. Quote examples, such as in a football match on a windy day, or other suitable illustration of wind effect.

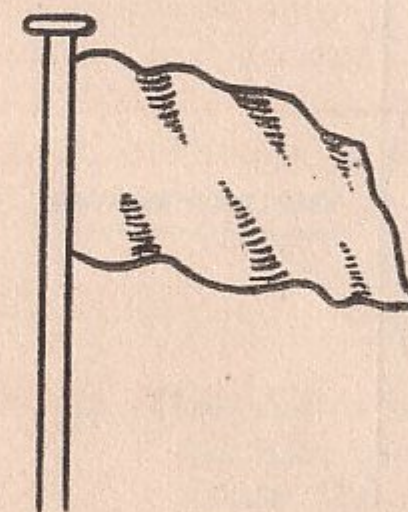
ii. That, when considering the effect of side winds, the firer must:—

judge the strength of wind;

select a point of aim into the wind, to give the required allowance;

maintain elevation while aiming off.

iii. That whilst there will invariably be a flag flying on the classification range, men should also learn to estimate the strength of the wind from personal experience and its effect on trees and grass.



FRESH, 10-12 m.p.h.



STRONG, 15-20 m.p.h.

FIG. 3.



### 3. Aiming off :—

- i. Explain that, in aiming off for a side wind at targets on the classification range, there are three convenient points of aim which will give the necessary allowance at various distances. These points are :—

The edge of the aiming mark.

Midway between the edge of the aiming mark and the edge of the target.

The edge of the target.

These points of aim give a practical method of aiming off, and only shooting experience under varying conditions can provide a more accurate means of determining the allowance required.

FRESH WIND 200 YDS.

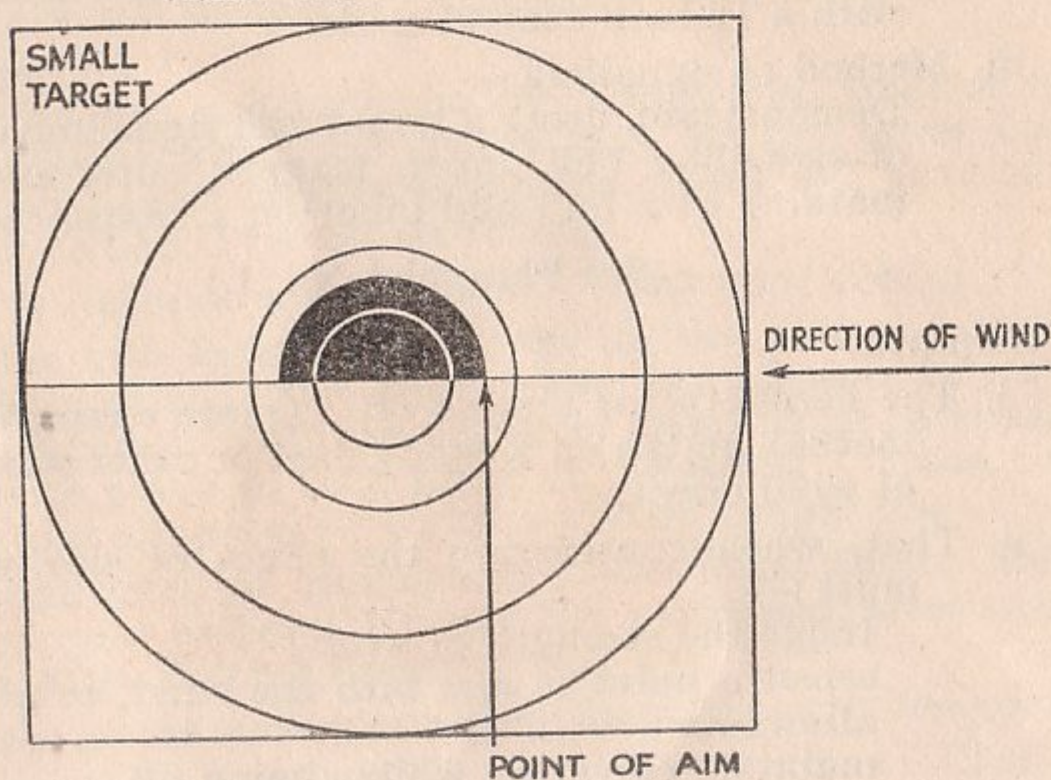


Fig 4

FRESH WIND 300 YDS.

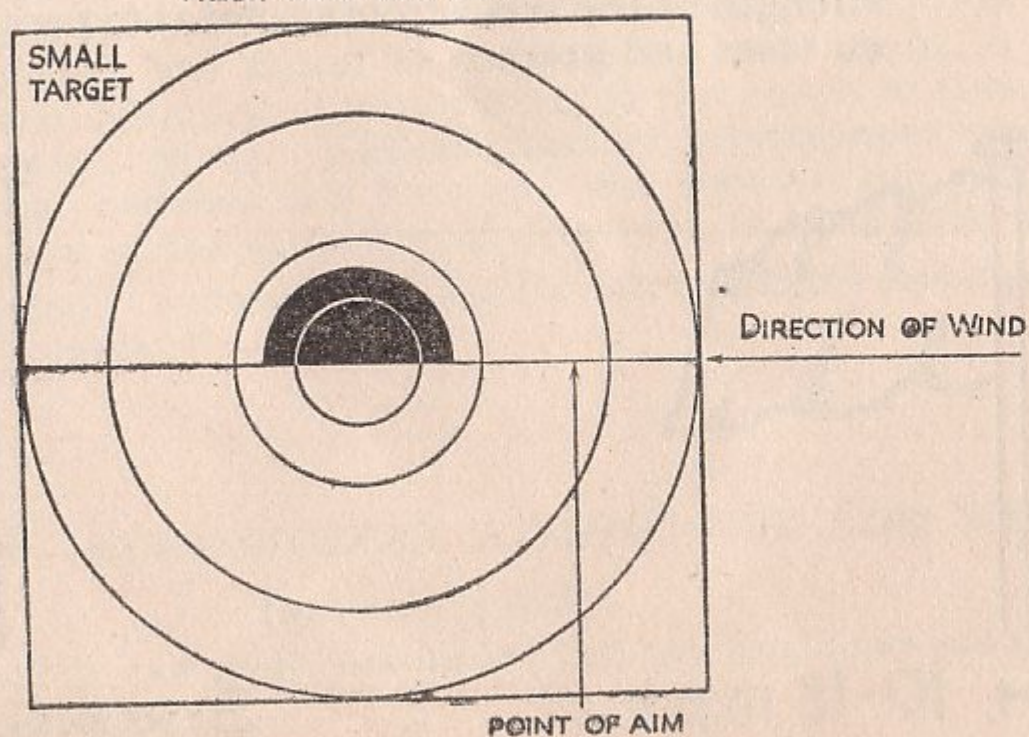


Fig 5

FRESH WIND 600 YDS.

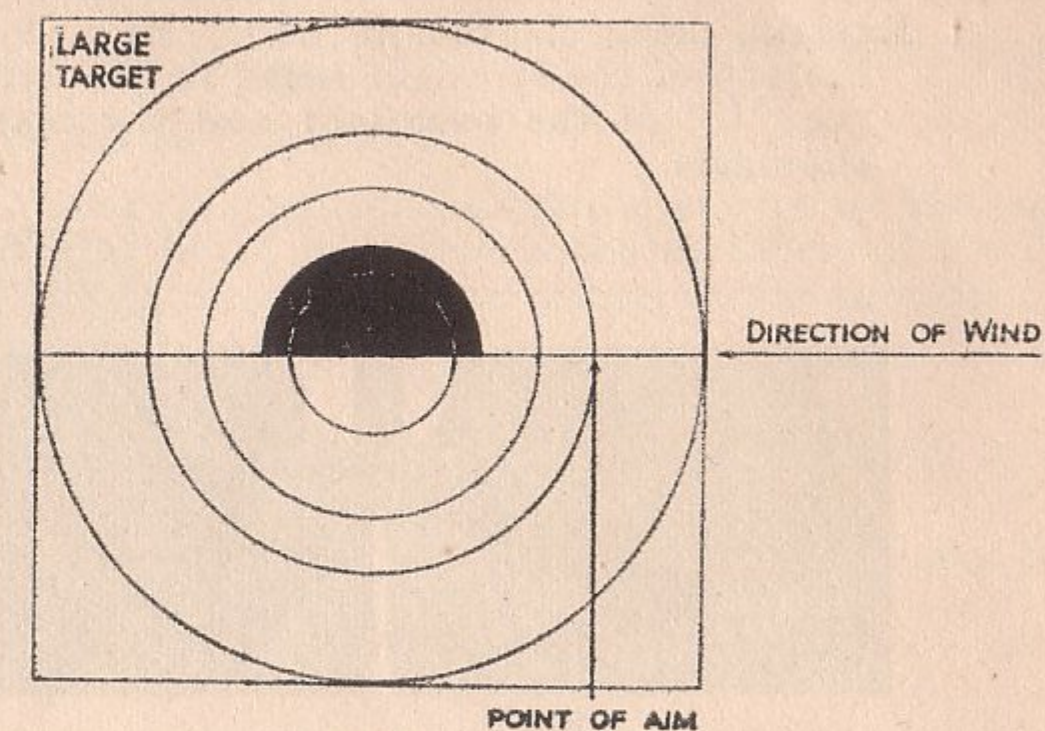


Fig 6

FRESH WIND 300 YDS.

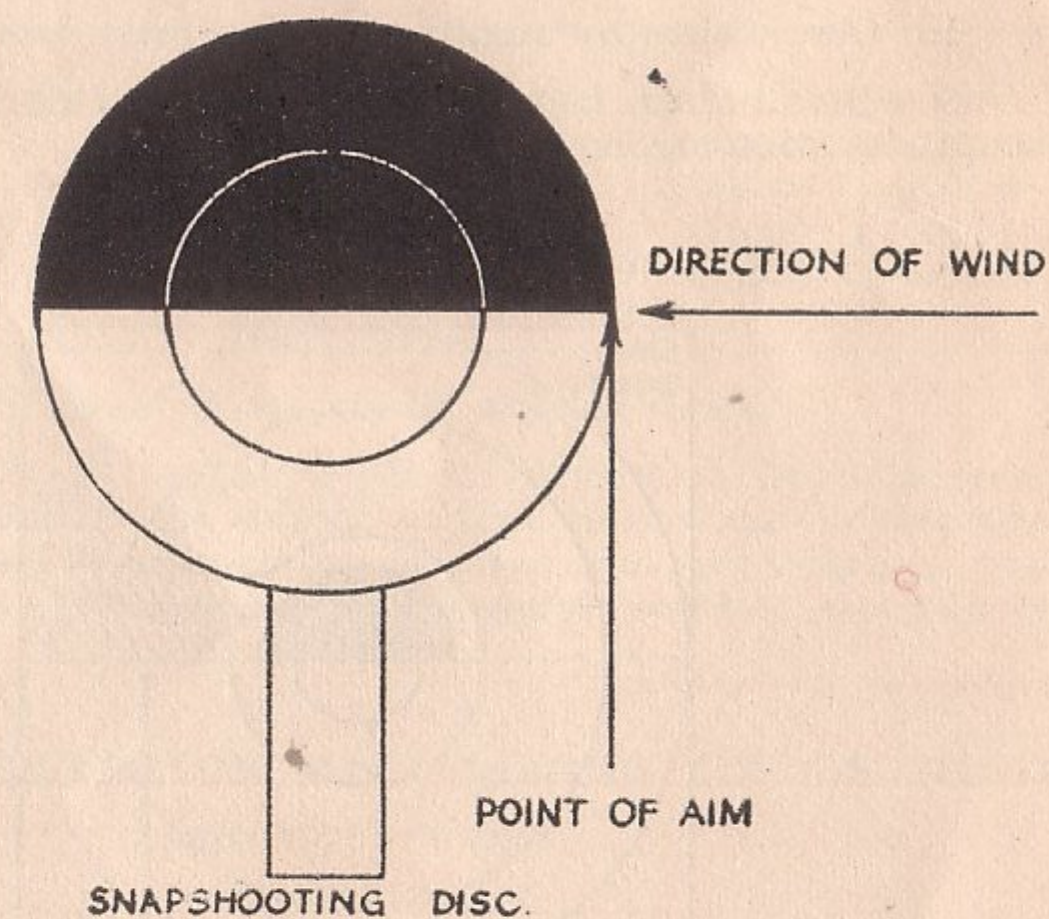


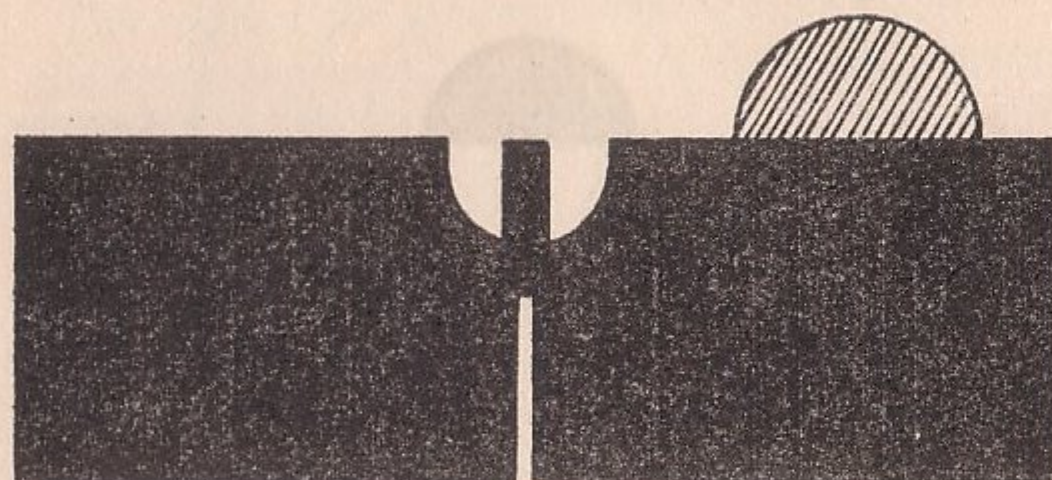
Fig 7

- ii. The above target diagrams (Figs. 4 to 7) illustrate the point of aim required at various ranges, for a *fresh* wind blowing from the right.
- iii. For an oblique or strong wind, move in or out to the next point of aim to give a lesser or greater allowance respectively. (See note at end of this lesson.)



#### 4. Aiming off, maintaining elevation.—

- i. Explain, using diagram as under, how elevation is kept by the top of the foresight being in line with the shoulders of the "U" of the backsight and the mark resting on the shoulders.



Aim off to the Left.

- ii. Practise squad aiming off at the three points of aim given in para. 3 above at small and large targets at ranges up to 500 yards.

- iii. Check aims by auxiliary aiming mark (see Fig. 8).

*Note.*—Small errors from the correct point of aim may be overlooked, except elevation errors.

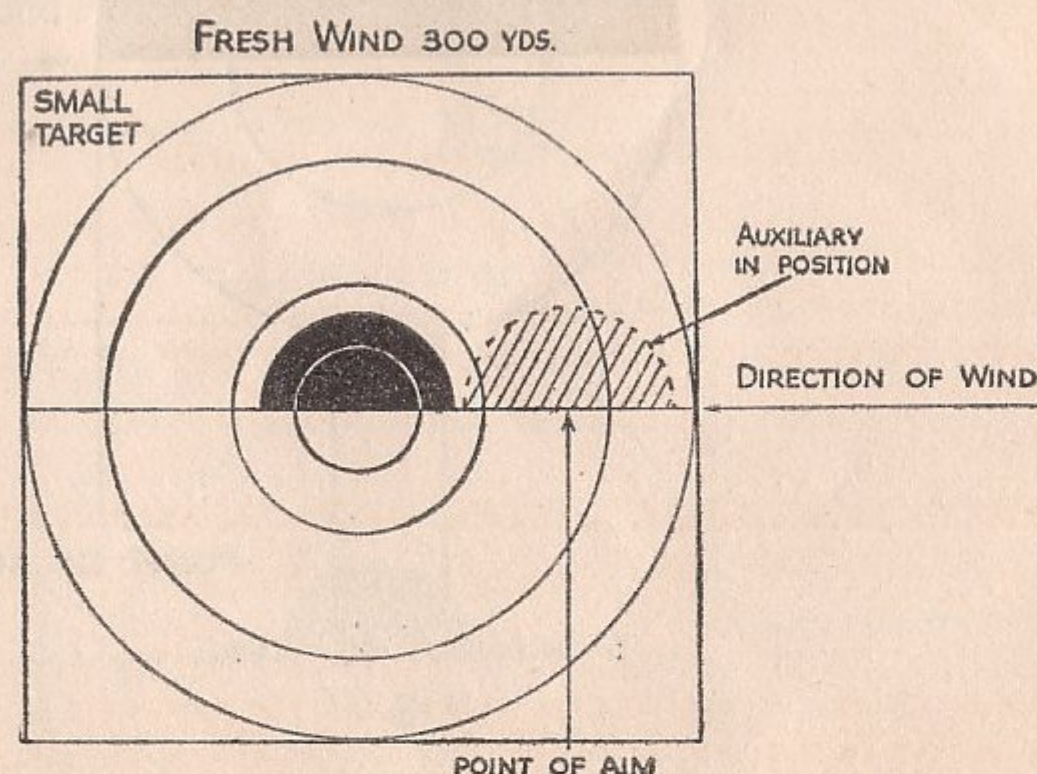


Fig 8.

5. Set problems introducing different winds at various ranges.

*Note.*—If sufficient distances and facilities are not available, the following method will be substituted for aiming at classification targets.

1. Using representative targets between 25 and 15 yards according to visibility and conditions:—

- (a) Explain sizes of targets which they each represent, as in 1 above.
- (b) Teach signals as in 1 above.

2. Explain, using diagram, how elevation is kept by the top of the foresight being in line with the shoulders of the "U" of the backsight and the mark resting on the shoulder.

3. Squad ordered to aim at the three points of aim right or left. Pin up auxiliary and check.

4. Squad practise aiming off at the equivalent of 200 to 500 yards.

*Note.*—A more detailed method of calculating the allowance is as follows:—

Strength of wind.	Ranges.				
	200	300	400	500	600
Fresh, 10-12 m.p.h.	Allowances.				
	6-in.	Double Allowance at 200	Treble Allowance at 200	Four times Allowance at 200	Five times Allowance at 200
Strong, 15-20 m.p.h.	1-ft.				

Halve these allowances for oblique winds.

This table is not to be taught as part of this lesson, but a reference to it should be noted by the soldier so that he can use it later when he has gained more experience in shooting and he desires a more detailed method of calculation than the simple method given in the lesson.

#### LESSON 10.—ELEVATION AND AIMING UP OR DOWN

*Instructor's Notes*

*See Page 15, Note 5*

*Paras. 2 and 4 are not essential for Recruit instruction. In place of para. 4 the Instructor should practise the squad in aiming down at figure targets up to 500 yards and explain the types and dimensions of such targets.*

*Stores.—*

*Classification targets with auxiliary aiming marks, 200 to 500 yards; signalling flag and one assistant at each target to use the marking disc.*

*Aiming vests, tripods and sandbags.*



1. Explain that, when firing, it may be necessary to make an alteration in sight adjustment, to raise or lower the position of the shots on the target—correcting errors by sight adjustment enables the correct point of aim to be maintained. To do this the soldier requires to know the Elevation Table. Teach the table:—

Range	An alteration up or down of 100 yards gives rise or drop on the target of:—
200	$\frac{1}{2}$ foot
300	1 foot
400	$1\frac{1}{2}$ feet
500	2 feet

- i. For an alteration of 50 yards halve the above allowances.
- ii. For an alteration of 200 yards double the above allowances.

2. **Alteration of sights.**—Tell squad that, having just fired at the target at 300 yards, the shot is low as signalled. Assistant places disc 12 inches below aiming mark. To correct this error, sights will be altered to 400 yards.

Explain that errors in elevation should be corrected by sight adjustment whenever time permits, and that, as it only takes three seconds to adjust the sights, this should nearly always be possible.

Set simple problems, using a marking disc on the target at from 200 to 500 yards, to show the supposed strike of the shot—above and below the aiming mark.

Give further practice at targets at ranges from 200 to 500 yards.

### 3. Aiming up or down.—

Explain:—

- i. The minimum sighting on the rifle being 200 yards, it will be necessary up to this range to aim down in order to correct shots observed to be going high.
- ii. When firing rapid or snapshooting, if a firer observes his shots to be going high or low, time will not permit a sight adjustment; he will have to alter his elevation by aiming down or up.

4. Signal assistant at target to place disc 6 inches above the top of the bull's-eye. Explain that sights are adjusted to 200, but shots are striking as shown by the disc. The only way of getting them on the mark is to aim down one foot.

Squad aims at small target at 200 yards to counteract an imaginary error in the strike of shots as indicated by a disc. Check by auxiliary aiming mark.

*Note.*—If sufficient distances and facilities are not available, paras. 2 and 3 may be carried out on representative targets.

## LESSON 11.—AIMING OFF FOR WIND AT SERVICE TARGETS

### Instructor's Notes

*Stores.*—

*Silhouette figure targets at from 200 to 500 yards (two targets at each distance).*

*Aiming rests, tripods, sandbags.*

*Assistant at each distance.*

*To obtain full value this lesson must be carried out in the open at proper distances. When this is impossible, representative targets may be used.*

*In aiming off at silhouette figures, the aim will be considered correct if it is approximate to the centre of the auxiliary figure.*

### 1. Explain.—

The bullet is blown off its course to the point aimed at by the wind. It is, therefore, necessary to aim off into the wind a distance which is enough to counter the effect of the wind on the bullet. Each individual will be responsible at all times for making the necessary allowance for wind when engaging a target.

If you can feel the wind fresh on the side of your face, it is necessary to aim off.

The following rules are given as a guide for service conditions. They must be applied with common sense according to the direction and strength of the wind.

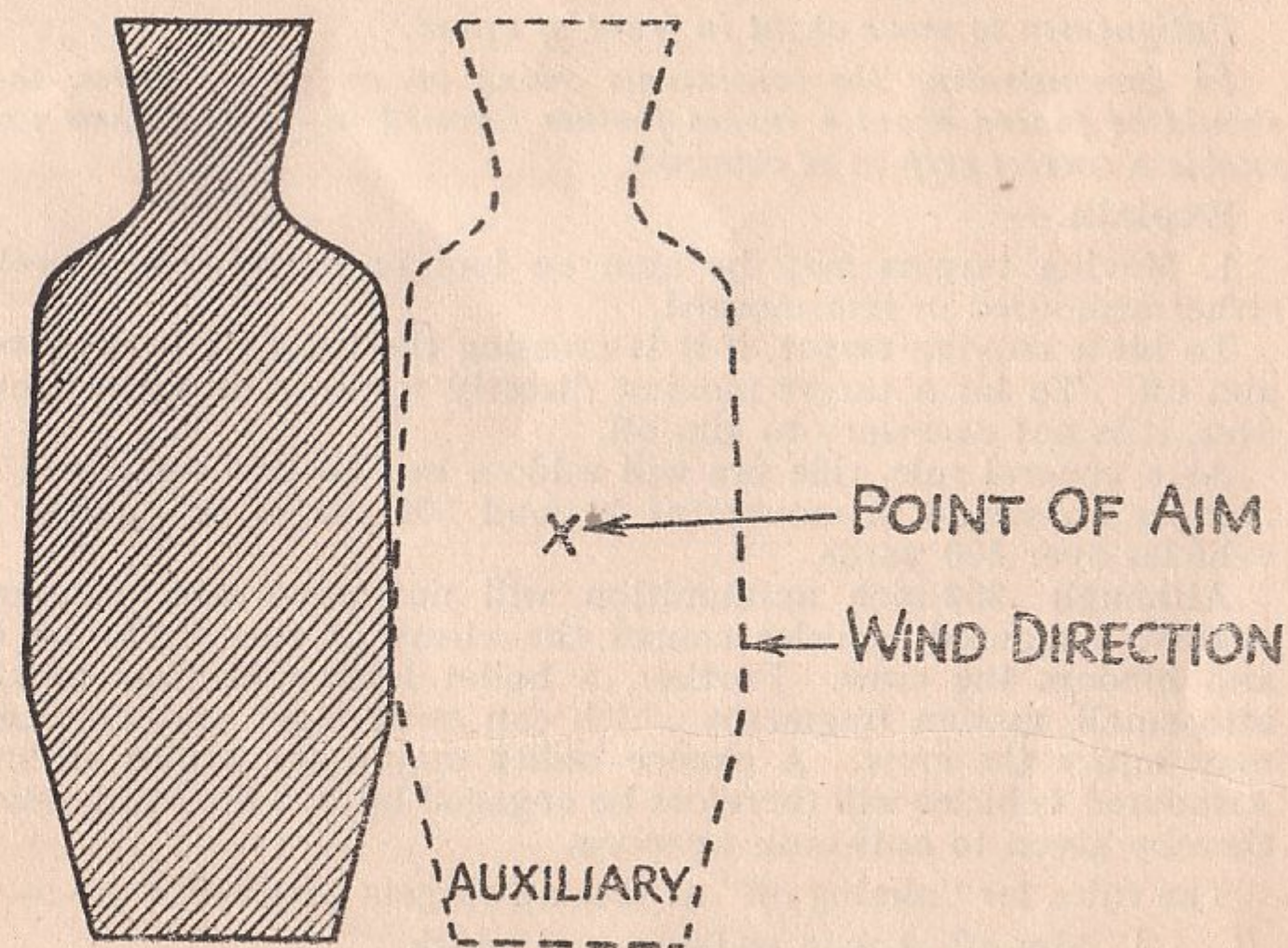


FIG. 9.



i. It is never necessary to aim off for any wind at ranges under 200 yards.

ii. Up to 400 yards, if you can feel the wind fresh on the side of your face, aim off one figure's width from the centre. (Imagine another figure standing beside that which is to be fired at.)

iii. At distances over 400 yards, aim off two figures' width.

*Note.*—The above rules refer to direct or oblique right and left winds. No allowance will be made for head or rear winds.

2. An assistant at the target, beginning at 200 yards, places an auxiliary figure on the right or left side of the figure which is to be fired at.

i. Squad aims at the auxiliary figure—instructor checks aims for accuracy.

ii. Auxiliary removed. Squad views to see what the required distance looks like at 200 yards. Repeat the same process at 300 and 400 yards.

3. Give conditions of the test.

4. Practise squad aiming off up to two figures' width at various distances. Check aims with auxiliary.

## LESSON 12.—AIMING OFF FOR MOVEMENT (GROUND)

### *Instructor's Notes*

*Stores, etc.—Aiming rests ; aim corrector.*

*Fatiguemen to move about in front of squad.*

*In demonstrating the continuous swing on an aiming rest, the rifle should be placed about 4 inches further forward in the rest than usual to enable a correct grip to be obtained.*

### **Explain.—**

1. Moving targets may be men on foot or horseback or vehicles, either armoured or unarmoured.

To hit a moving target, if it is crossing the front, it is necessary to aim off. To hit a target moving directly towards or away from the firer, it is not necessary to aim off.

As a general rule, rifle fire will seldom be effective against a single man or horseman in movement beyond 300 yards, or against single vehicles over 500 yards.

Although .303-inch ammunition will not penetrate armour, fire against armoured vehicles causes the visors of turrets to be closed and hinders the crew. Further, a bullet hitting armour breaks up into small, molten fragments which can enter slots and crevices and may injure the crew. A chance bullet may enter a gun embrasure. Armoured vehicles will therefore be engaged by .303 fire, and assistance thereby given to anti-tank weapons.

The rules for "aiming off" at ground targets with rifles are :—

i. Aim off at man walking, one width.

Aim off at man running, two widths.

Aim off at vehicles and horsemen, one width.

ii. Swing the rifle with the target and continue the swing while pressing the trigger.

2. Demonstrate : Aiming off at men on foot (with squad standing behind so that all movements of the rifle are visible, and fatiguemen walking across the front at 100 yards distance).

Aim in front one width and take first pressure ; *without checking swing* of rifle take second pressure. Continue swing after taking second pressure and reload.

3. Practise squad taking first pressure only.

4. Demonstrate to each man in turn, using an aiming seat and aim corrector, the continuous swing taking both pressures.

5. Practise squad in complete action up to distances of 300 yards at men walking and doubling ; check each man in turn with aim corrector.

6. Aiming off at vehicles.—

Teach as above, using traffic on any available road.

*Note.*—See Figs. 10, 11, and 12 on page 28 for correct points of aim on certain types of targets.



## SECTION 3.—FIRING INSTRUCTION

(LESSONS 13 TO 21)

1. *Object.*—To teach the soldier to handle his rifle so that in war correct action will be instinctive and effective.

2. *Use of left shoulder.*—A man with normal vision learning to use the rifle can be taught to fire from the right shoulder, for which the rifle is constructed, as easily as from the left. Any inclination to use the left shoulder will therefore be discouraged.

3. *Slings.*—Slings will not be used to steady the rifle during firing.

4. *Fitting rifles.*—Rifles have long, normal, and short butts and will be issued to men according to their build. The readiness with which the firer can bring his rifle into the aim without having his nose and mouth too close to the thumb and fingers of his trigger hand will indicate the suitability of the size of his rifle. This test will be made under the supervision of an officer as soon as the recruit has been taught how to fire in the lying position and again after arrival in his unit or whenever a new rifle is issued to him.

5. *Declaration of aim.*—As soon as the man has been taught how to press his trigger, he will be informed that, in all firing instruction, he will have to declare his exact aim at the moment the second pressure has been taken, except in rapid fire. The importance of a truthful declaration must be emphasised. Instructors must set a good example, taking care not to acquire a habit of automatically declaring their own shots correct when demonstrating to young soldiers.

6. *Fire discipline.*—Firing instruction is the basis of fire discipline training. Instructors must be alert to see that the points mentioned in Lesson 23, as applicable to the stage of training, are performed correctly. When recruits have reached a satisfactory standard in firing positions in the open, they will be taught to adapt them to various types of cover; bayonets may be fixed at this stage.

7. *Rest position.*—When a pause is necessary during instruction in order to explain anything to the squad, the order "Rest" will be given, whereupon safety catches will be applied and a convenient position of rest adopted. When the explanation, etc., is finished, the order "Position" will bring the men back into their original position.

8. *Final five minutes.*—Five minutes at the end of each lesson will be set aside to exercise those muscles directly used in holding and firing the rifle and to *quicken* men in its handling, particularly in the actions connected with snapshooting and rapid fire. Such exercises are left to the discretion of the instructor, who may include any lessons previously taught in firing instruction. Suitable "Quickening" and "Strengthening" Exercises will be found in Appendix VI.

For the Australian Military Forces—

9. A soldier or cadet will not aim or fire at an aiming disc held at the eye of another soldier or cadet except as provided in para. 10.

10. When it is considered necessary to check the aim of a soldier or cadet by means of an aiming disc, held to the eye, such check must be carried out by an officer, warrant officer, or non-commissioned officer of the rank of corporal or above.

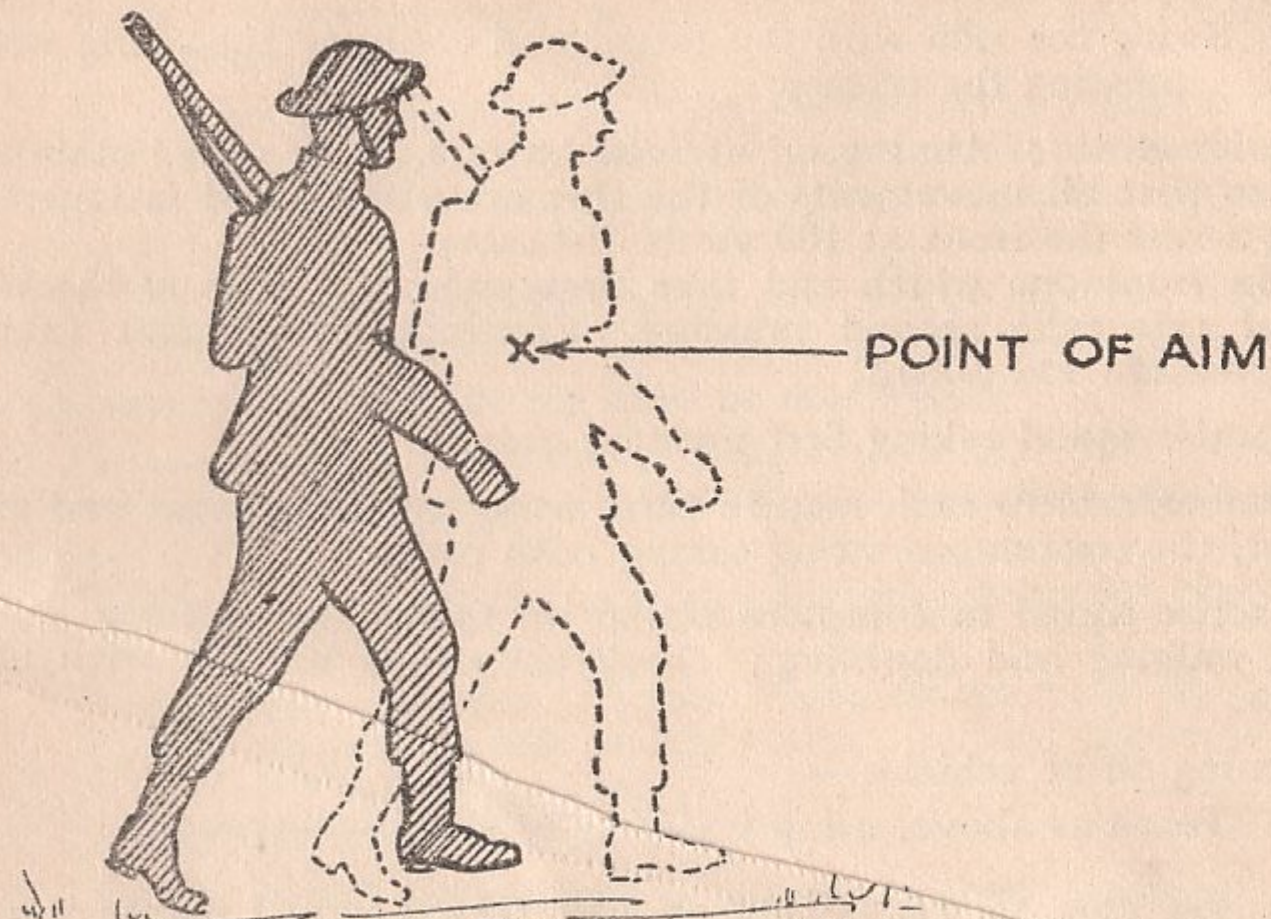


Fig. 10

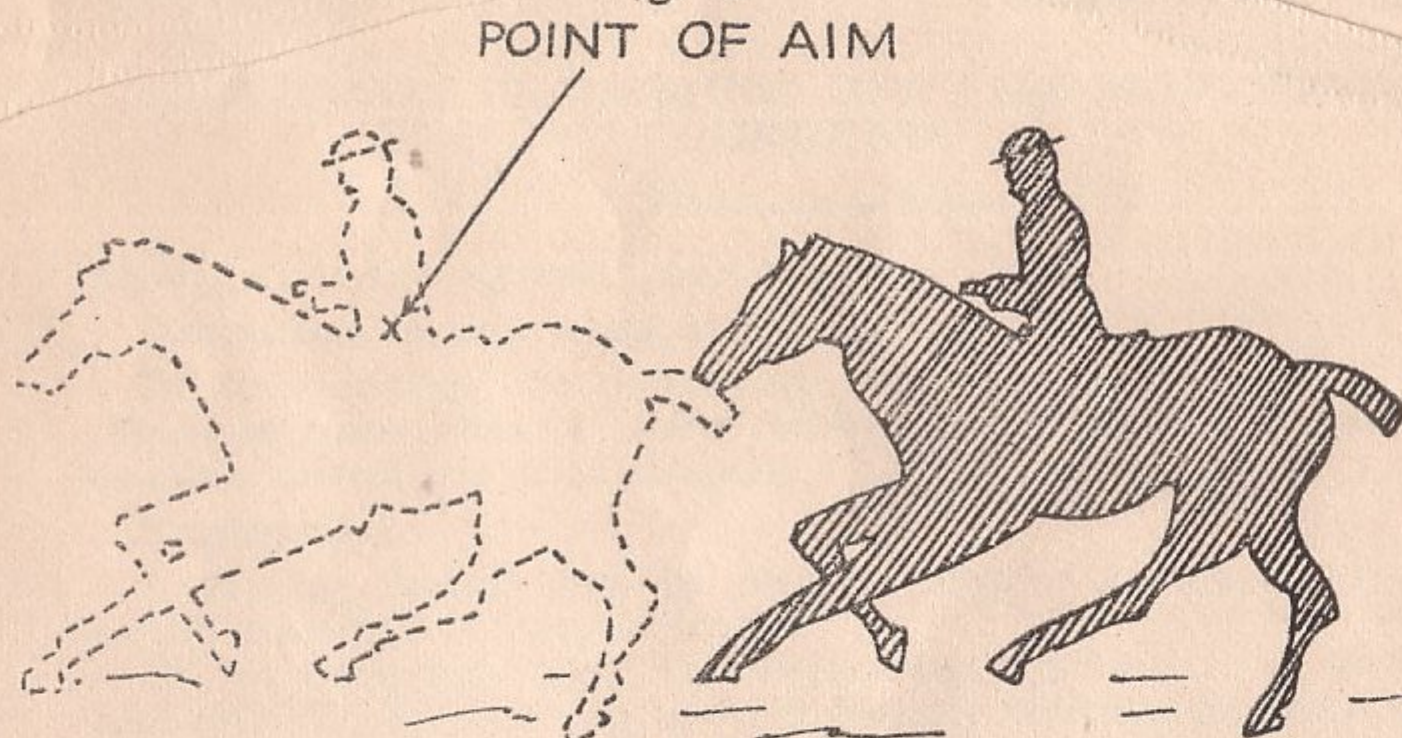


Fig. 11

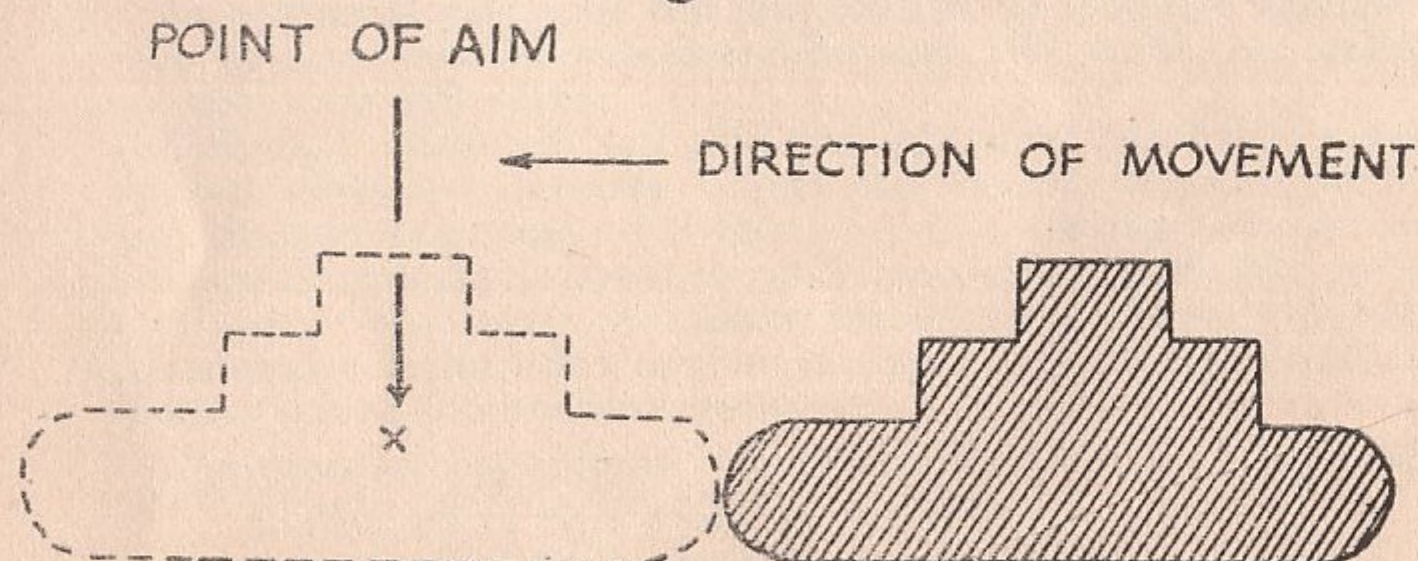


Fig. 12



11. The use of the aim corrector in some instances will render the employment of an aiming disc unnecessary.

12. Members of one rank of a squad will not, under any circumstances, be permitted to aim or fire at aiming discs held by members of the other rank.

13. Drill cartridges must NEVER be used when aims are being checked by an aiming disc.

14. Only the authorized cardboard aiming disc is to be used for checking aims.

#### 15. Application of Safety Catch.

The safety catch will be applied:—

- i. After loading the rifle (or charging magazines).
- ii. In the "Position of Observation."
- iii. In the "Position behind Cover."
- iv. Before movement from a firing position.
- v. On the order "Rest."

### LESSON 13.—LYING POSITION

#### *Instructor's Notes*

#### *Stores.—*

*Suitable targets for each man and instructor.*

*Man will be taught to adopt the lying position rapidly and to handle the rifle with as little movement as possible. The oblique angle of the body (see Fig. 13) must not be exaggerated.*

*Indicate individual targets to squad and specify own target. Extend squad to suitable intervals.*

#### 1. Explain.—

The lying position is generally used on service for firing in the open or from low, continuous cover such as a bank or fold in the ground, and from isolated cover such as rocks, trees, etc.

RIFLE POINTING IN DIRECTION OF TARGET.  
READY TO BE BROUGHT QUICKLY INTO SHOULDER

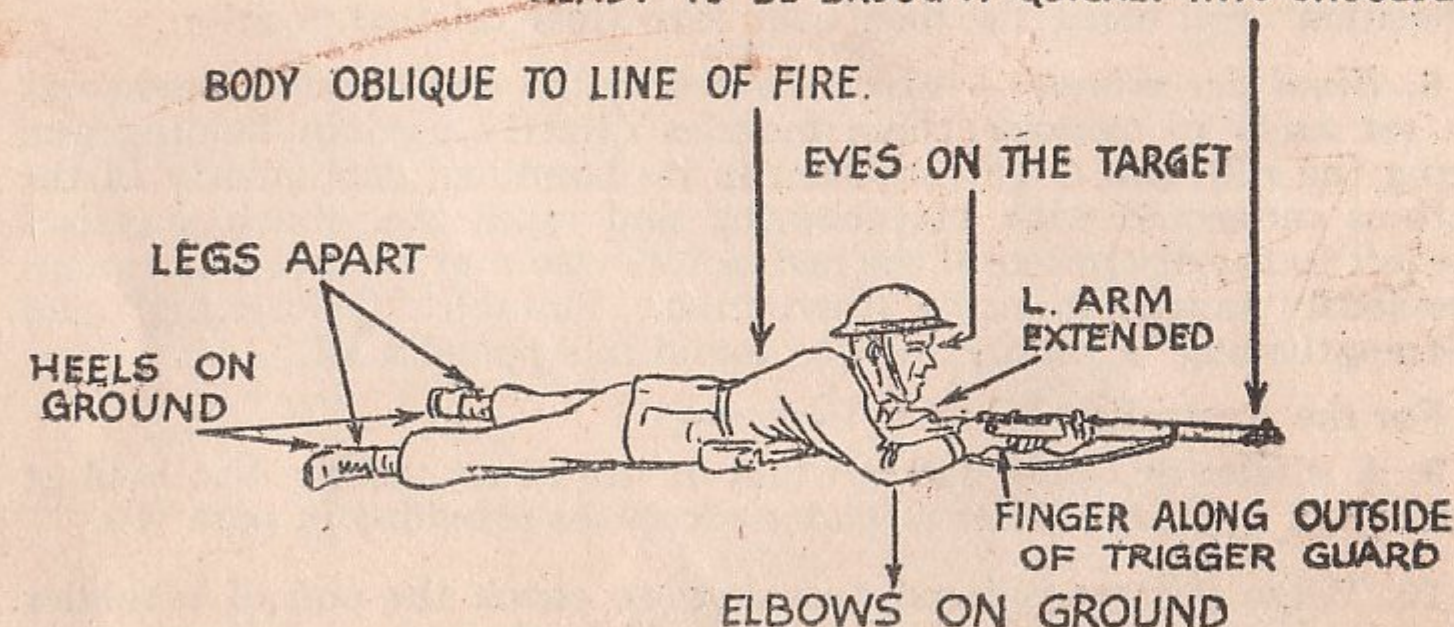


Fig. 13

#### 2. Explain and demonstrate, with squad imitating:—

#### *Position for loading.*

- i. To lie down.—Take a long pace forward to the right front with the left foot. At the same time change the rifle into the left hand, grasping it at the point of balance. Place the right hand on the ground in line with the left foot and lie down: the right hand finally assuming grip at small of butt, finger alongside trigger guard. (During this movement push the rifle forward in the direction of the target and lower it to the ground; the left arm will now be extended to the front) (see Fig. 13).

Instructor specifies points illustrated in Fig. 13.

- ii. To get up from the lying position. Place the right hand on the ground below the right shoulder. Draw up the left knee as far forward as possible without unduly raising the body. At the same time draw back the rifle with the left hand. From this position stand up as quickly as possible, bringing the right foot up to the left, and return to the order. Stand at ease. Do not use the rifle as a support when getting up or getting down.

#### 3. Practise squad.

Instructor checks actions of each individual, repeating demonstration of correct actions where necessary.

#### 4. Explain and demonstrate, with squad imitating:—

#### *Loading, sight setting, unloading.*

- i. Loading (as already taught).
- ii. Sight setting.—Quit the rifle with the right hand. Draw the rifle back with the left hand, taking care not to raise the head and avoiding any unnecessary movement, until the lines on the backsight can be clearly seen. Set the sights and resume the position for loading.
- iii. Unloading (as already taught). Lower sights and stand up.

#### 5. Practise squad.

#### 6. Final five minutes (see para. 8; page 29).

Suitable movements are the actions of assuming the loading position, loading, etc., quickly and cleanly.

### LESSON 14.—LYING POSITION (continued)

#### *Instructor's Notes*

#### *Stores.—*

*As for Lesson 13 with the addition of the aiming disc.*

*To avoid any tendency to develop a habit of declaring every shot correct, the declarations of some of the squad must be checked with the aiming disc. Drill cartridges will not be used whilst this checking is being carried out.*

1. Explain and demonstrate, with squad imitating, having been ordered to load; e.g., "Load"—"400."



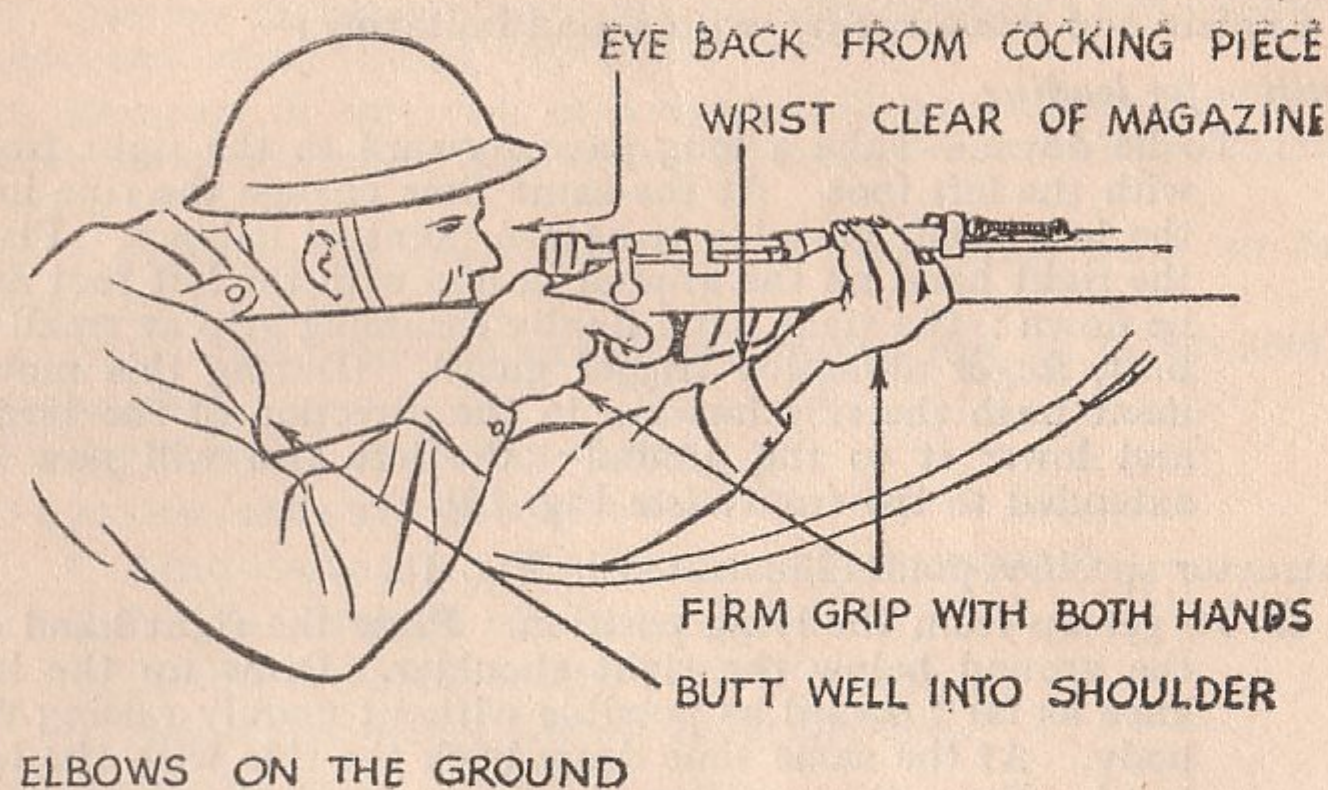


Fig 14.



Fig 15.

### Holding and aiming.

Look at the target. Push forward the safety catch. Lift the rifle into the shoulder, keeping both elbows on the ground. Hold the rifle firmly with both hands. Take the first pressure the moment the butt comes into the shoulder. Lower the cheek to the butt, eye well back from the cocking-piece. Close the left eye and aim. To raise or lower the muzzle, if this is necessary, move the body backwards or forwards on the elbows without altering the grip on the rifle. Return to the position for Loading. (See Figs. 14 and 15.)

Instructor specifies the points illustrated in Figs. 14, 15, and 16.

2. Practise squad. Instructor checking and paying particular attention to the position of the eye in relation to the cocking-piece.

The following are the methods of getting the eye back from the cocking-piece :—

- i. Raise the head a little and draw it back.
- ii. Raise the butt a little higher in the shoulder.
- iii. Turn the body less obliquely to the target.
- iv. If these methods fail, obtain a longer butt.

3. Explain.—(Squad ordered to Rest; e.g., rifle placed on ground, head supported by hands in a comfortable position.)

### Slow rate of fire and responsibility for loading.

The normal slow rate of fire is five rounds a minute. On service, after the rifle has once been loaded, the soldier is responsible that his magazine is kept filled until "Unload" is ordered. When the command "Stop" is given, the soldier will come to the loading position. Whenever necessary, advantage should be taken of this opportunity for loading.

### BODY OBLIQUE TO LINE OF FIRE

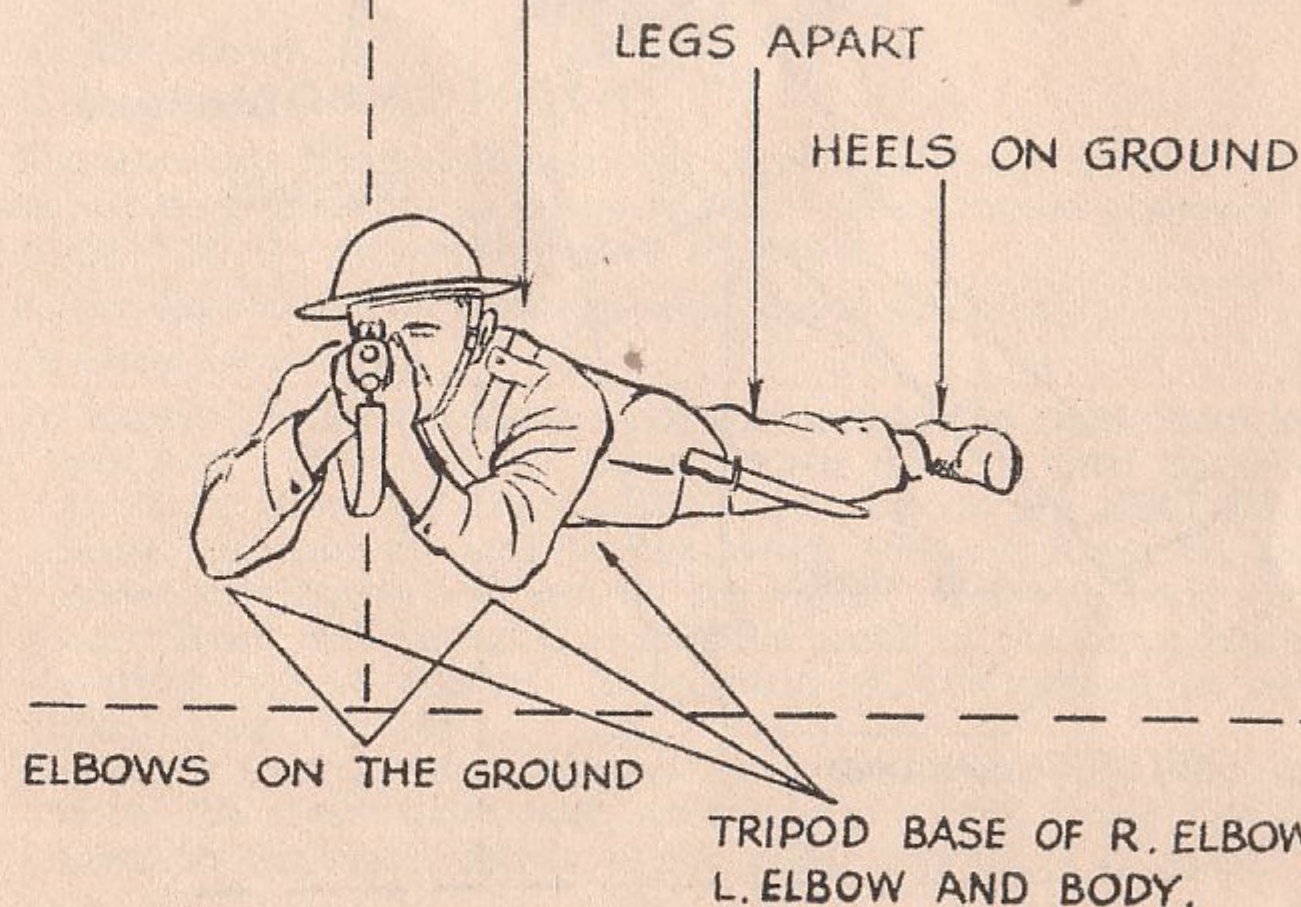


Fig 16



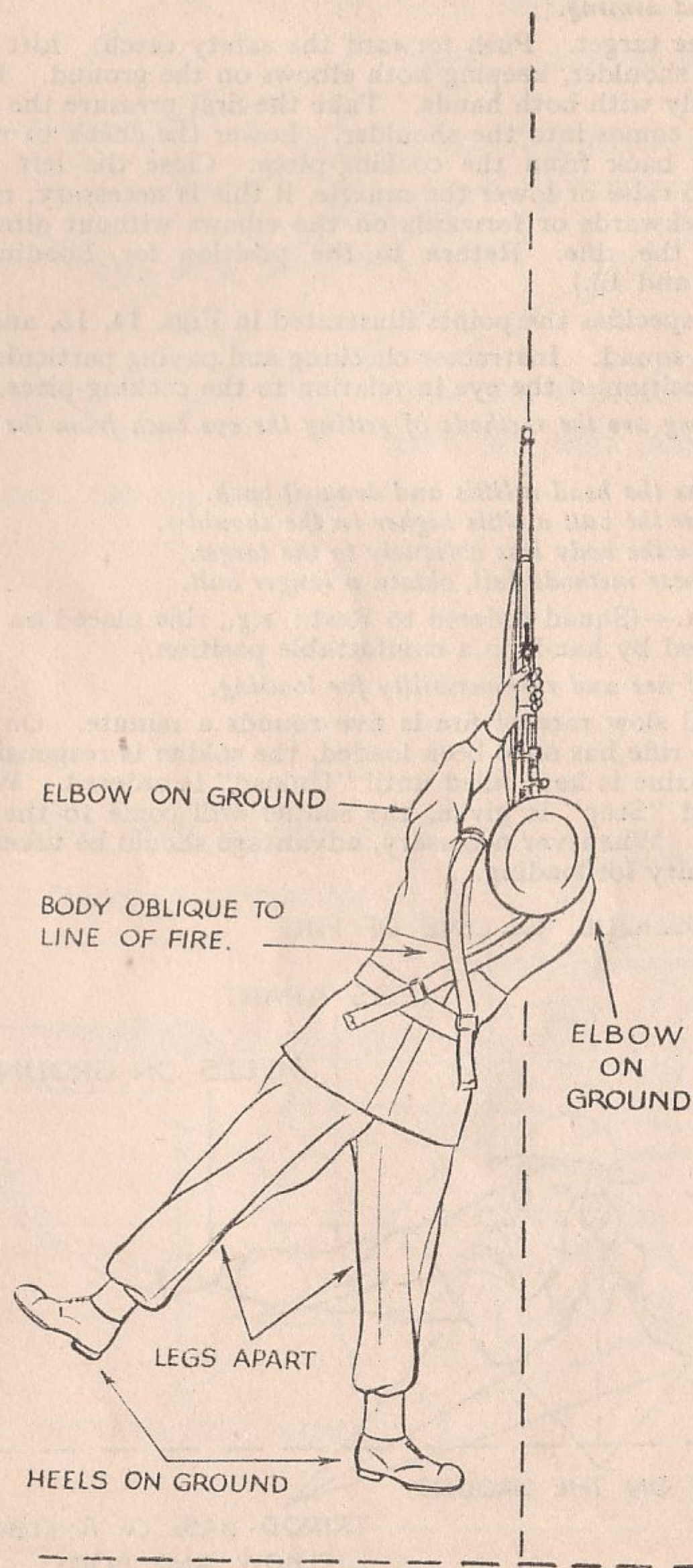


Fig. 17.

4. Order "Position." Explain and demonstrate, with squad imitating.

*Firing.*

On the command "Fire," bring the rifle into the shoulder, take the first pressure and aim.

When satisfied that the aim is correct, check the breathing while taking the second pressure. Declare as truthfully as possible the aim at the moment of discharge, *i.e.*, "Correct," "High," "Low," etc.

Keeping the head still and right elbow down, reload at once with the rifle in the shoulder; lower the rifle to the position for loading. Continue the above actions until command "Stop" is given, then action as in para. 3.

5. Practise squad.

6. **Explain.**—

*Aids to good shooting :—*

Physical fitness.

Bolt to be "bright clean" and slightly oiled.

Firm grip with both hands.

Tilt the rifle slightly to the right when reloading.

Keep the head still.

Count the number of rounds.

7. Practise squad, in Lessons 13 and 14, occasionally checking aims. Drill cartridges must not be used in checking with the aiming disc. (See Sec. 3, paras. 9 to 14, on pages 29 and 30.)

8. Final five minutes (*see* para. 8, page 29). Suitable movements are those concerned with Lesson 13, combined with reloading with butt in shoulder, etc. (*See* "Quickening" and "Strengthening" Exercises.)

## LESSON 15.—KNEELING POSITION

*Instructor's Notes*

*As for Lesson 13.*

1. **Explain.**—

The kneeling position is used on service for firing from a low wall, a bank, in long grass, or in crops or scrub which would obstruct the line of sight if the lying position were adopted.

2. Explain and demonstrate, with squad imitating :—

*Position for loading.*

To kneel.—Take a walking pace forward to the right front with the left foot. At the same time change the rifle into the left hand, grasping it at the point of balance, rifle on the right side of the body, muzzle up and to the front. Kneel down on the right knee, keeping it well out to the right; sink the body on to the right heel, right hand grasping the small of the butt, left forearm resting behind the left knee, butt of rifle resting on the right thigh (*see* Fig. 18).

To return to the order.—Stand up, grasping the rifle near the band with the right hand and, at the same time, bring the left foot back to the right, return to the order and stand at ease.

3. Practise squad.



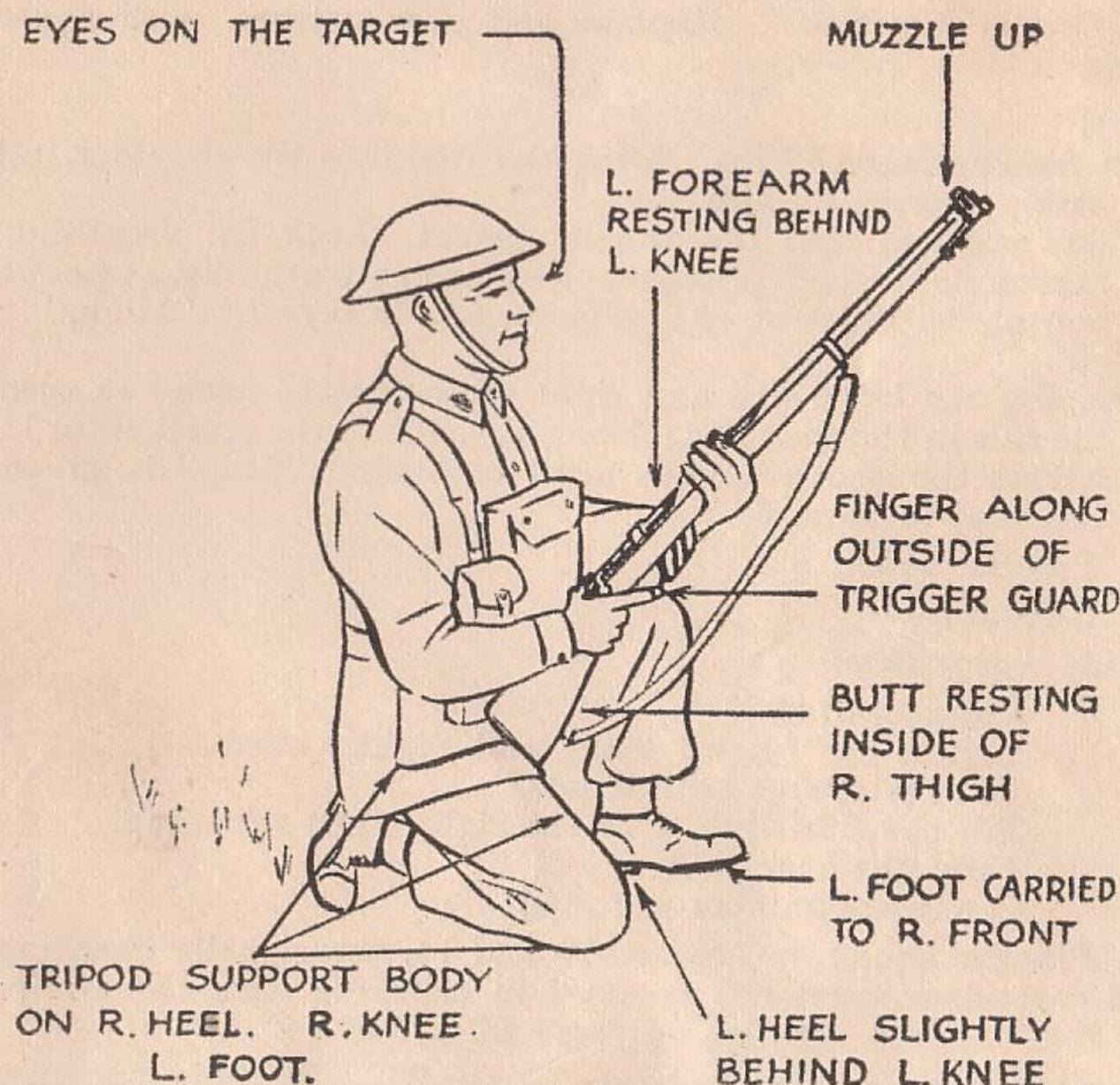


Fig. 18.



Fig 19

4. *Loading, sight-setting and unloading*—as already taught. Practise squad by word of command.

5. Explain and demonstrate, with squad imitating, having been given the order "Kneeling, Load . . . hundred."

*Holding and aiming—firing.*

Look at the target; push forward the safety catch; without raising the left arm, slide the left elbow forward until it rests either behind or in front of the left knee, whichever is the more convenient (see Fig. 19). The right elbow to be slightly below the right shoulder.

To raise or lower the muzzle, if this is necessary, move the body backwards or forwards on the right heel. Fire as in the lying position. Return to the loading position.

6. Practise squad.

7. Practise squad in complete lesson.

8. Final five minutes (see para. 8, page 29); e.g., as for Lessons 13 and 14.

## LESSON 16.—STANDING AND SITTING POSITIONS, ETC.

*Instructor's Notes*

*As for Lesson 13.*

*Standing position.*

1. Explain.—The standing position is used to fire over high cover, to take a snapshot during an advance, to fire at aircraft, and to charge magazines.

2. Explain and demonstrate, with squad imitating:—

*Position for loading.* (See Fig. 20.)

Turn half right.

Carry the left foot to the left so that the body is equally balanced on both feet. Cant the rifle forward and catch it at the point of balance with the left hand, the muzzle pointing upwards, small of the butt just in front of the hip.

To return to the order.—Seize the rifle with the right hand near the band; at the same time bring the left foot back to the right, return to the order and stand at ease.

3. Practise squad.

4. *Loading, sight-setting and unloading*, as already taught. Practise squad by word of command.

5. Explain and demonstrate holding, aiming, and firing.

6. Practise squad.

7. Practise squad in complete position. (See Fig. 21.)

8. **Explain:—**

The position as taught will be modified when taking a "hasty snapshot" during an advance. This will be dealt with in a later lesson.



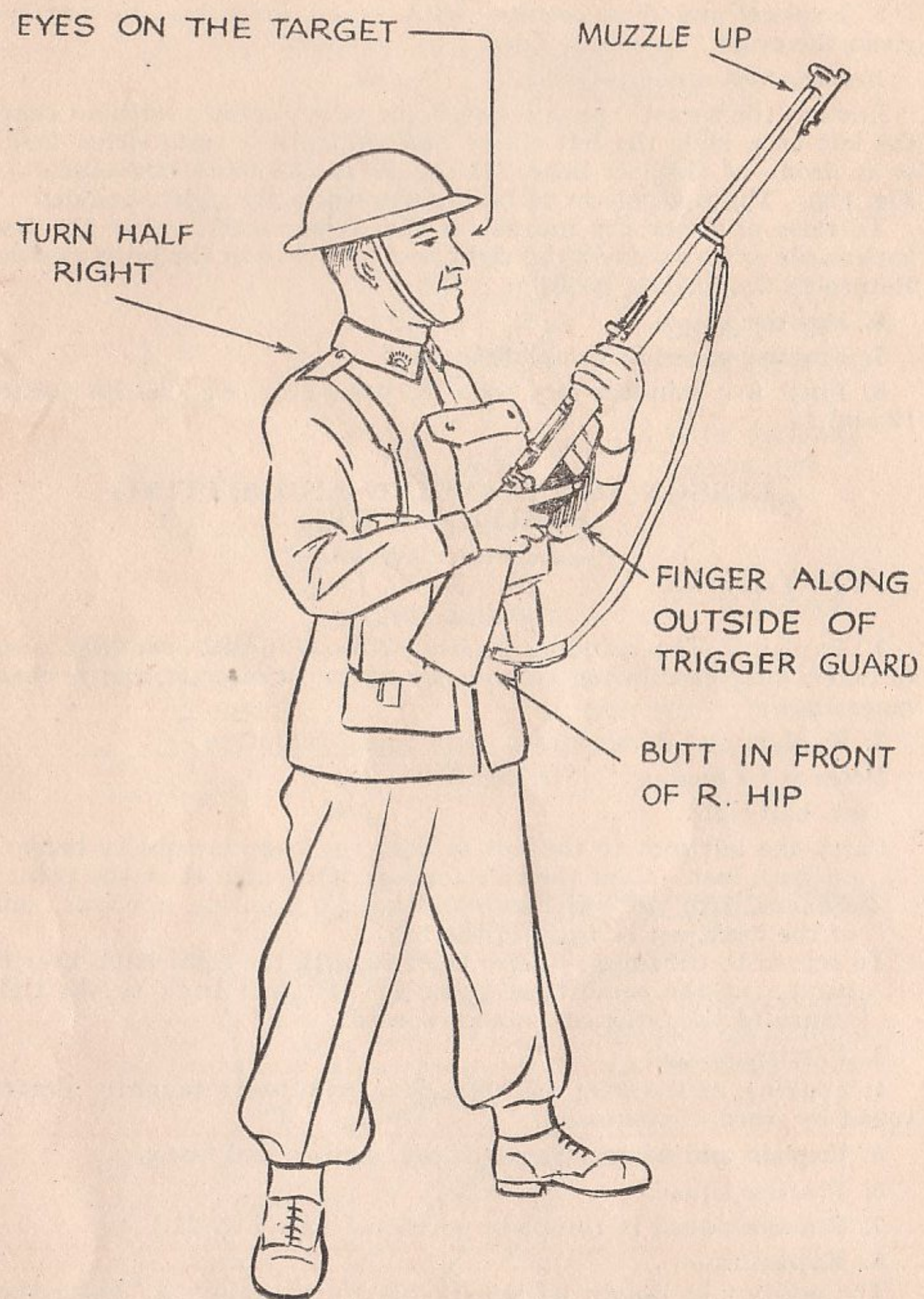


Fig. 20

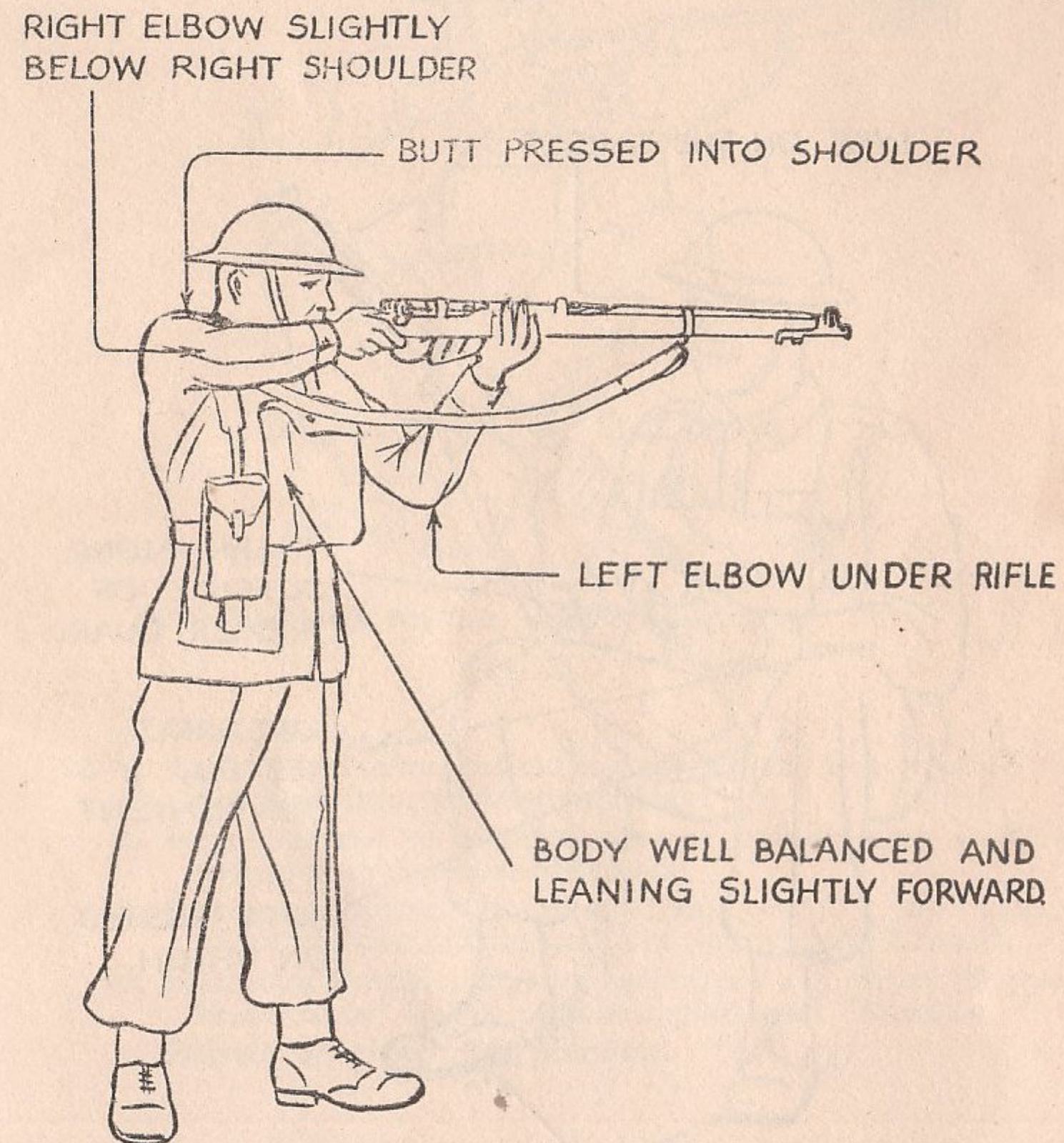


Fig. 21



*Sitting Position.*

(Steep, sloping ground must be used for this lesson.)

9. Explain.—The sitting position is used to fire from a steep slope, down or across a valley.

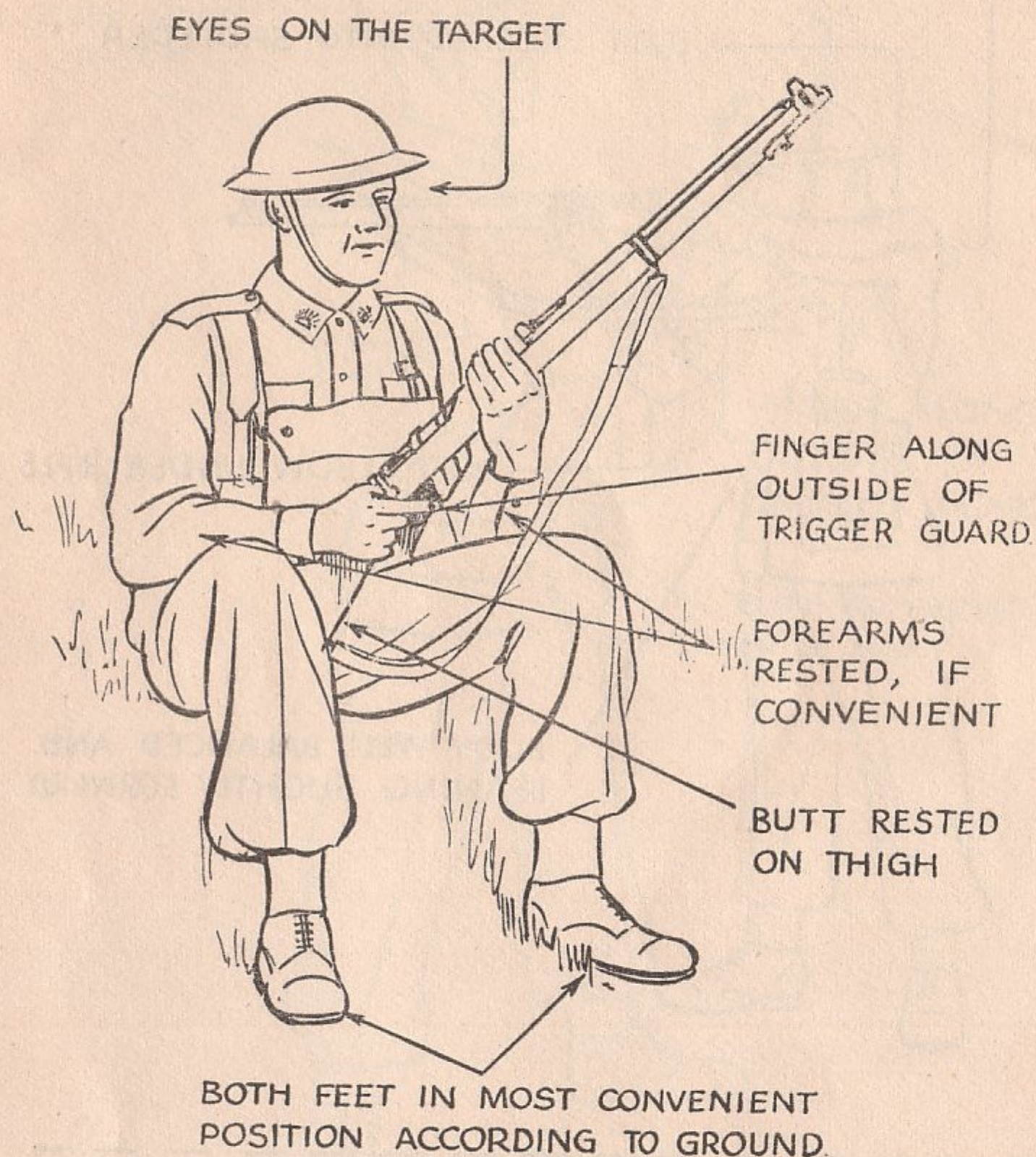


Fig. 22

10. Explain and demonstrate position (as per Figs. 22 and 23).

11. Practise squad.

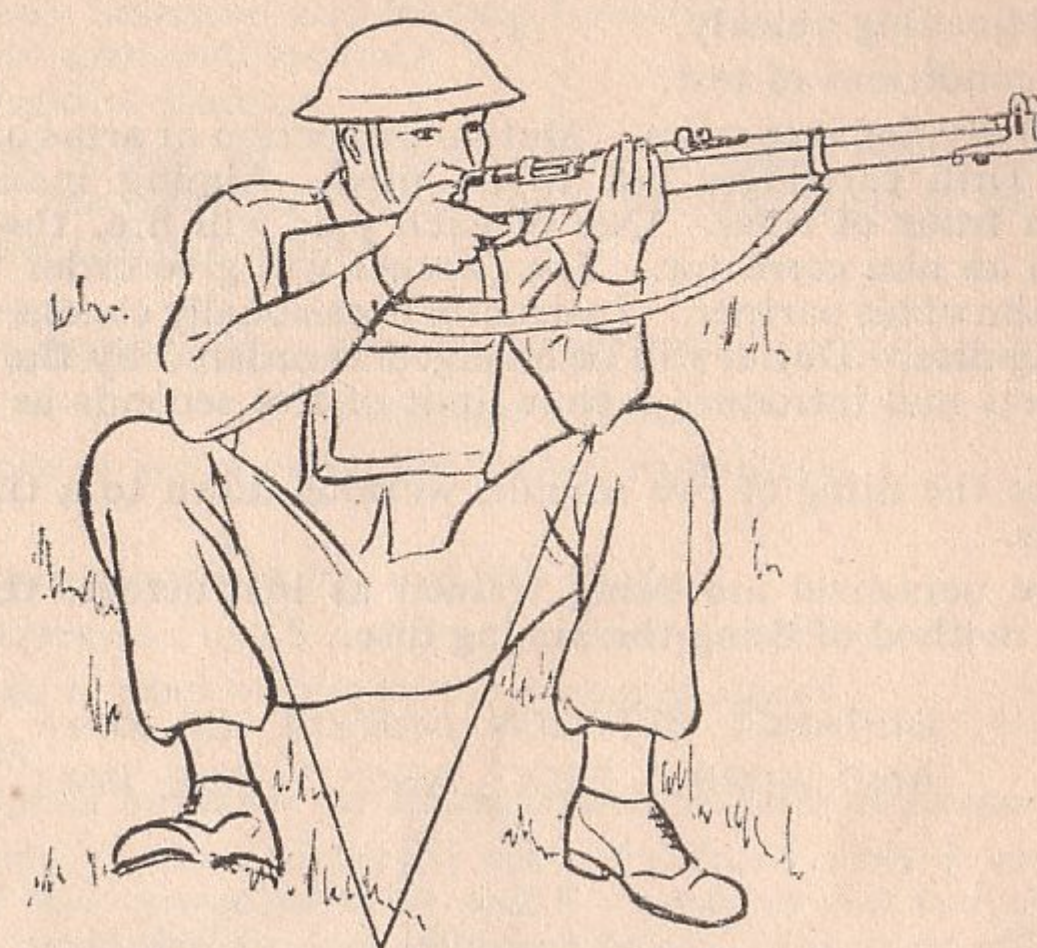


Fig. 23.

12. i. Explain and demonstrate from the trail or slung position, the quick adoption of firing positions.
- ii. Squad ordered to advance, rifles at trail or slung on either shoulder, in direction of targets.
- iii. Instructor orders "Kneeling (Lying, etc.)." Men quickly adopt position ordered and aim (safety catch forward).
- iv. Instructor checks actions of individuals and orders "Prepare to Advance" (safety catches applied) and "Advance."
- v. Repeat, adopting other positions.

**LESSON 17.—SNAPSHOOTING**

*Instructor's Notes*

*Stores.—*

*Aiming discs for authorized Instructors (vide Sec. 3, page 29, para. 10). Aim correctors and small aiming marks for half the squad.*

Explain that to hit an enemy appearing suddenly for a few seconds, it is necessary to fire one or two shots quickly—speed in firing and reloading may enable a second shot to be fired before the enemy disappears. This is termed "SNAPSHOOTING."



1. Explain and demonstrate, emphasizing:—

- i. Correct position.
- ii. Necessity for quick aiming.
- iii. Reloading quickly.

2. Give conditions of test.

3. Squad divided into pairs. Mutual inspection of arms and pouches in pairs. Drill cartridges not to be used. Aiming marks a short distance in front of rifles. One of each pair will fire, the other will check with an aim corrector. The checker will give order "Fire" and check the aim of his partner. Instructor occasionally checks individuals with aiming disc. Duties will be changed as ordered by the instructor. Fix bayonets and introduce a time limit of five seconds as progress is made.

Introduce the firing of two rounds, working down to a time limit of ten seconds.

4. Where personnel are being trained as instructors, they will be shown the method of using the aiming disc.

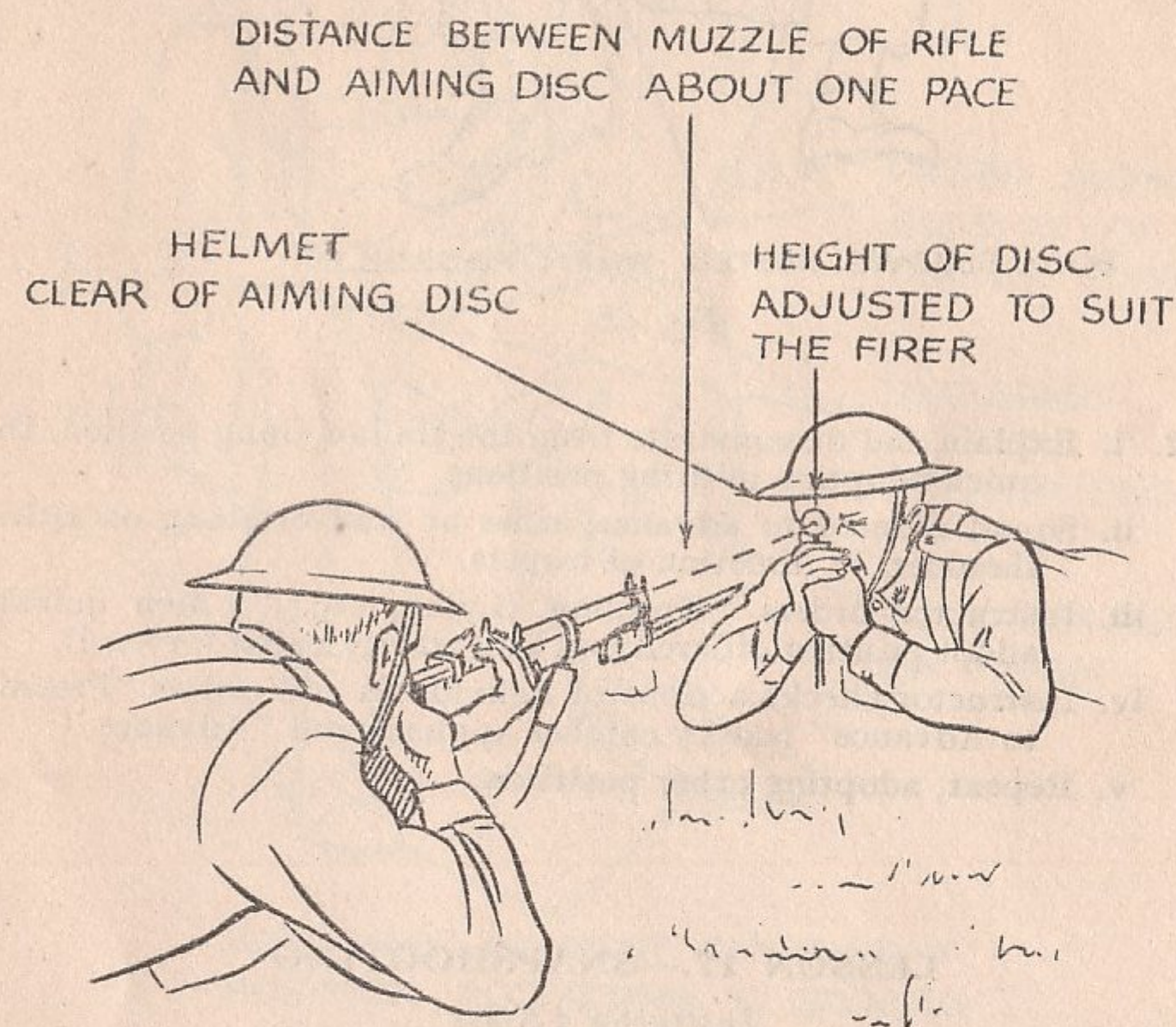


Fig 24.

5. Demonstrate actions to be adopted when taking a snapshot at close range during an advance (rifle held in a similar position to "High Port," safety catch forward; squad stationary).

- i. Rifle rapidly brought into shoulder and automatically aligned on target by sense of direction.
- ii. Trigger pressed as rifle aligned.
- iii. Left foot well advanced. *Knees may be slightly bent.*
- iv. Body balanced and leaning forward.
- v. Left arm well forward.
- vi. Rapid re-loading.

6. Practise squad on suitable targets at close range. After each shot is fired, firers should quickly check the alignment of the rifle with respect to the target engaged.

## LESSON 18.—SNAPSHOOTING (Continued)

### *Instructor's Notes*

*This Lesson is not essential for Recruit instruction.*

### *Stores.*

*Snapshooting targets at 200 and 300 yards.*

*Silhouette targets Figs. 3 and 4 at ranges up to 300 yards.*

*Fatiguemen to work targets on pre-arranged signal.*

*Signal flag.*

*Representative targets if the lesson cannot be given at proper distances.*

*As progress is made, exposure will be reduced from 5 seconds to 3 seconds and then increased to 10 and 6 seconds so that two shots can be fired. Exposures will be from different places. Bayonets will occasionally be fixed.*

*Fatiguemen may be used to represent an enemy in the later stages, moving and disappearing as previously rehearsed.*

1. Explain the arrangement of exposures, and that squad will fire at any targets that appear.

2. Order squad to "Load . . . hundred."

3. Signal exposure of targets as under:—

1st phase—Snapshooting targets at 200.

2nd phase—Snapshooting targets at 300.

3rd phase—Silhouette figures 200 to 300.

4. Practise squad moving through area (as in an advance) and engaging targets exposed by pre-arranged signals. Exposure of targets to be twelve seconds. Two rounds to be fired at each exposure. Safety catches to rear until target is exposed. Position to be adopted by the squad, i.e., Standing, Sitting, or Kneeling, to be ordered immediately before the appearance of the target.

## LESSON 19.—RAPID FIRE

### *Instructor's Notes*

### *Stores.*

*Targets for each man.*

*Aiming discs and aim correctors—as shown from Lesson 17 on page 42.*

### *Explain.—*

Rapid fire is the maximum effort of the rifleman, and is only required for short but critical periods. For this reason every effort must be made to reach a high standard.



1. *Explain and Demonstrate*, emphasising the following points :—  
Rifle into the aim on the word "Rapid."  
Butt maintained into the shoulder.  
No declaration of aim, but count rounds fired.  
No sacrifice of accuracy for speed.  
*Re-charging of magazine.*
2. Give conditions of test.
3. Practise squad with aim correctors in pairs as in Lesson 17.  
Fix bayonets as progress is made.  
Instructor controls—orders—"200—RAPID—Fire, Stop."
4. Practise squad in single rank with drill cartridges, working up to a speed of five rounds in twenty seconds.
5. Final five minutes (*see para. 8, page 29*).

### FIRING BEHIND COVER

#### *Instructor's Notes—All Positions*

*Arrange for suitable cover to be available, and suitable targets.*  
*"Standing load" and ground arms.*  
*Assemble squad beside cover.*  
*Avoid precise drill movements.*  
*Do not insist on exact similarity of action on the part of individuals.*  
*Criticism and correction of positions, actions, etc., will be made as far as possible by interrogation, to encourage those under instruction to use their intelligence.*  
*As progress is made, bayonets will be fixed.*  
*When all positions behind cover have been learnt, squad should be given a demonstration of using cover incorrectly and correctly in all positions.*  
*Squad should face the cover in the lying position and note the amount of movement and exposure.*

#### Introductory Remarks

##### Explain :—

The object of firing from cover is to kill the enemy while presenting the smallest possible target to his view or fire.

Every soldier is, therefore, taught to select positions behind cover and to use his weapons to the best advantage from such positions. When circumstances permit, all movements which entail exposure should be carried out cautiously.

Some of the types of cover which may be met with on service are:—

Folds in the ground.	Shell-holes.
Banks.	Walls.
Hedgerows.	Rocks.
Logs, trees and bushes.	Slit trenches.

Cover may be continuous or isolated, and may be cover from fire or only cover from view.

Good cover should :—

- Permit a free use of the weapon.
- Have a good field of fire.
- Be bullet-proof.
- Be inconspicuous.
- Be easy to advance from.

The main conditions to be observed by a firer when using cover are :—  
Modification of position to suit the cover, so that he can see his target and use his rifle effectively.  
No undue movement or exposure.  
Correct resting of the rifle. (*See Figs. 27 to 29.*)

### LESSON 20.—LOW COVER

#### 1. *Explain and Demonstrate* :—

**Position of Observation.**—Used when the firer(s) is watching his front. On the command "DOWN," lie down as quickly as possible behind the cover and crawl forward so that the front can be seen without undue movement or exposure. The whole of the rifle to be below cover with the safety catch applied.

**Position behind Cover.**—Used when the Sec. Comdr. does not want the whole of the section observing, etc. On the command "BEHIND COVER" the whole of the body and the weapon must be completely concealed behind the cover. If the order "WATCH YOUR FRONT" is given, get back into the "Position of Observation" again.

**Position of Readiness.**—On the "Range" being ordered, set the sights (or, if acting individually, set the sights to the estimated range) slide the rifle cautiously forward over the cover and adopt a position as near the loading position as possible, safety catch forward. (*See Fig. 25.*)

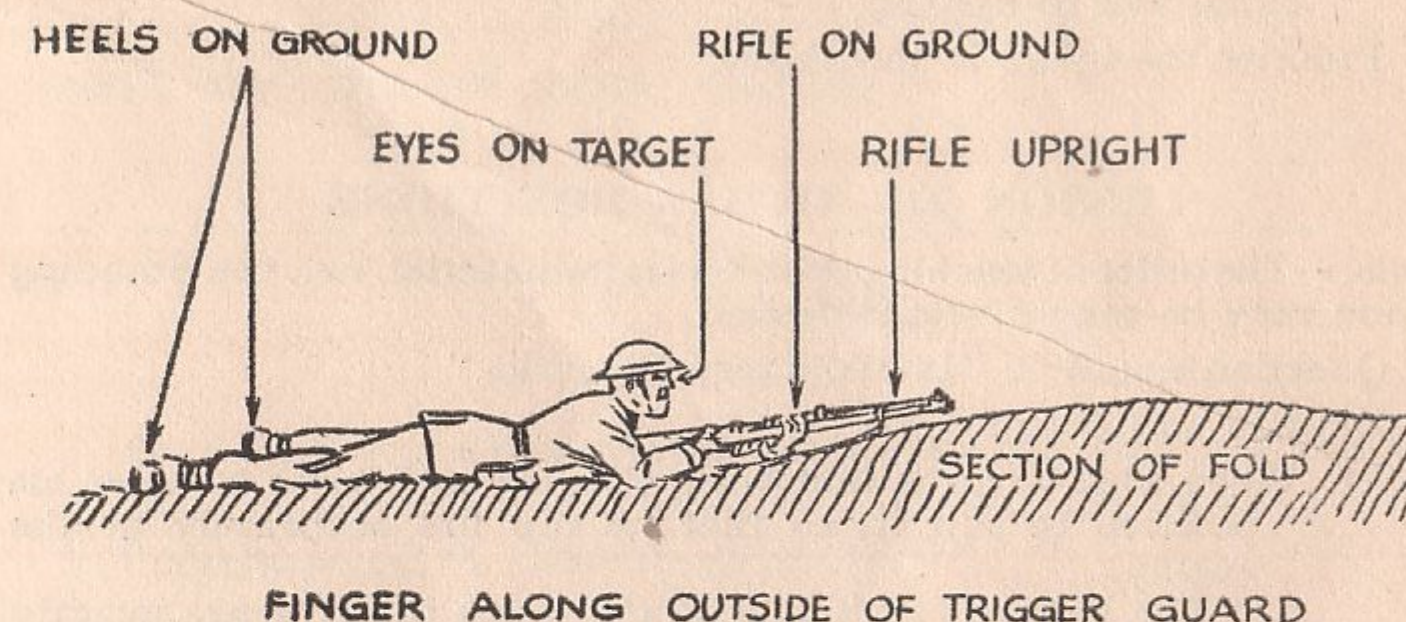


Fig. 25

On the target being indicated, aim. The left wrist and hand should be rested on the cover, if possible. (If the cover is hard, then the rifle is rested as near the point of balance as possible, fore end clear of the cover, the left hand should be clear of the magazine and hard against the cover.) Both elbows should be rested, if possible.

When firing from a fold in the ground, the body and rifle should be back behind the crest, with the muzzle just above



the crest of the cover. The effect of "muzzle blast" on dry or loose surfaces must, however, be appreciated by the firer. (See Fig. 26.)

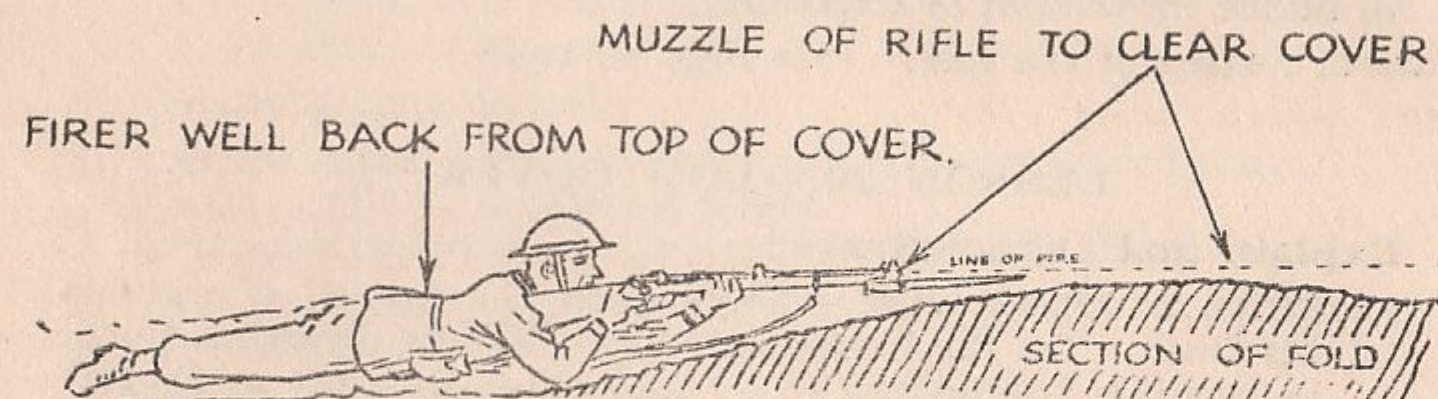


Fig. 26

On the order to fire, act as previously taught. If possible, keep the rifle in the shoulder all the time during firing, as this will restrict movement and not draw the enemy's attention, but the rate of fire must not be increased in consequence.

On the order "STOP" being given, load with a further five rounds, if there are only five rounds or less in the magazine. This will be done with the rifle on the cover, avoiding unnecessary exposure, the safety catch being left forward.

The order to "ADVANCE," "WATCH YOUR FRONT," or "TAKE COVER" may now be given, when the safety catch will be applied.

2. Practise the squad in the above.

## LESSON 21.—OTHER POSITIONS

*Note.*—The order of teaching positions is immaterial, *i.e.*, the Standing position may be taught first if desired.

1. Question squad on "Introductory Remarks."

2. Explain and demonstrate:—

- i. When high cover is met with, the firer will have to alter his position to suit it, so that he can fire accurately at the enemy.

The methods of handling and firing the rifle are exactly the same as in the previous lesson.

The positions which can normally be adopted will be shown in the lesson.

- ii. Kneeling and Sitting.—"Positions of Observation," "Behind Cover" and "Watch Your Front" will be carried out exactly the same way as in the previous lesson, except that the positions must be modified to suit the cover. The main point is to avoid over exposure.

On the "Range" being ordered, set the sights (or, if acting individually, set the sights to the estimated range) and adopt the "Position of Readiness." Kneel on the right

knee, keeping it out to the right, and with the body supported on the right heel, the left elbow resting on the left thigh, if possible. It may be more comfortable to kneel on both knees or even adopt a sitting position, depending on the nature of the cover. (See Fig. 27.)

LEFT HAND AND FOREARM RESTED IF COVER SUITABLE

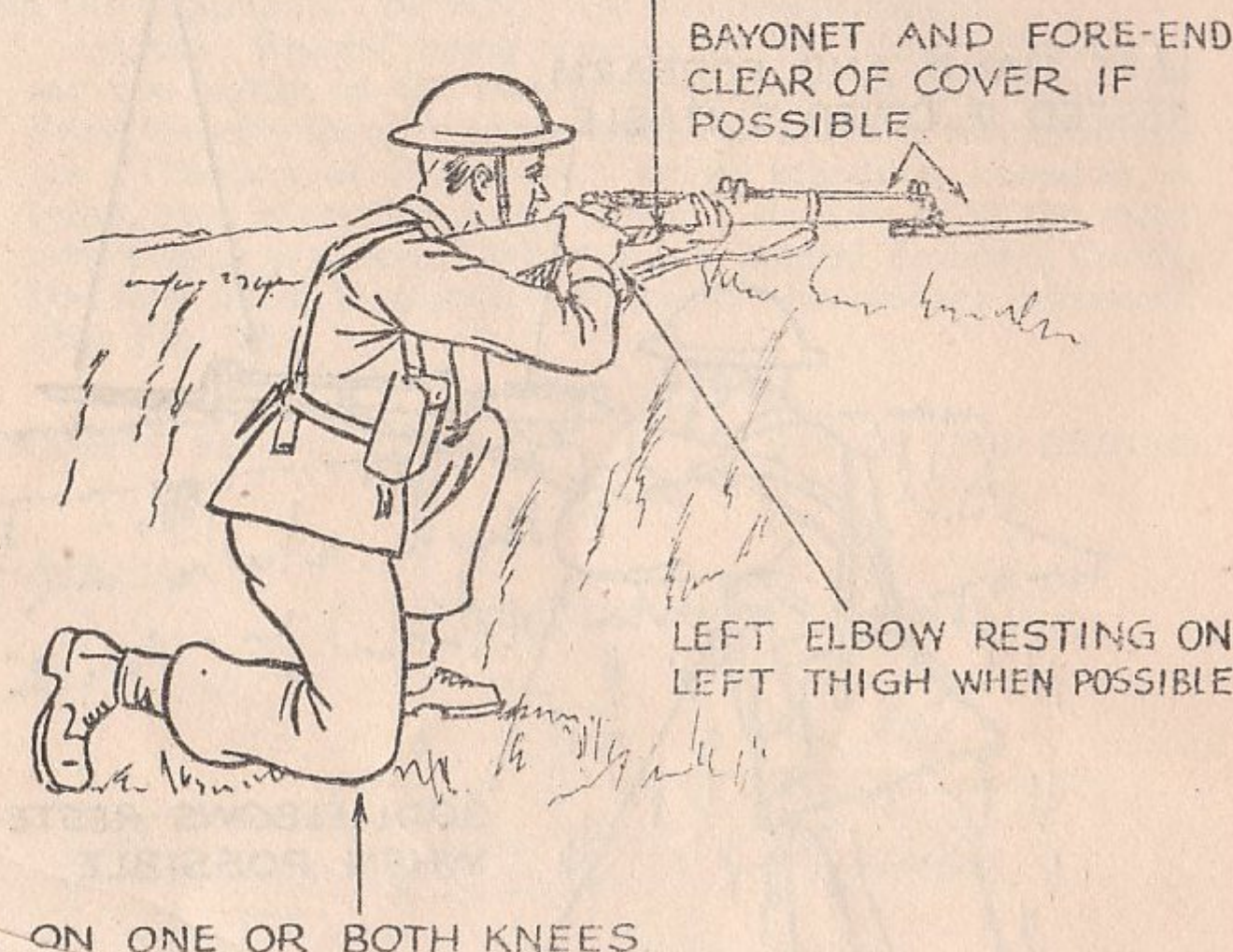


Fig 27

- iii. Firing.—The resting of the rifle, firing, loading, etc., is exactly as previously taught.

3. Practise squad in all methods of firing.

4. Standing:—

- i. Explain and Demonstrate.—"Positions of Observation" and "Behind Cover" and the actions of "Watch Your Front" are the same as for kneeling. "Position of Readiness" as for kneeling with probably slight differences, such as both elbows rested, as in a trench. The body pressed against the cover, if possible. (See Fig. 28.)

- ii. Firing.—The methods of firing, etc., are the same as already taught.

5. Practise squad.



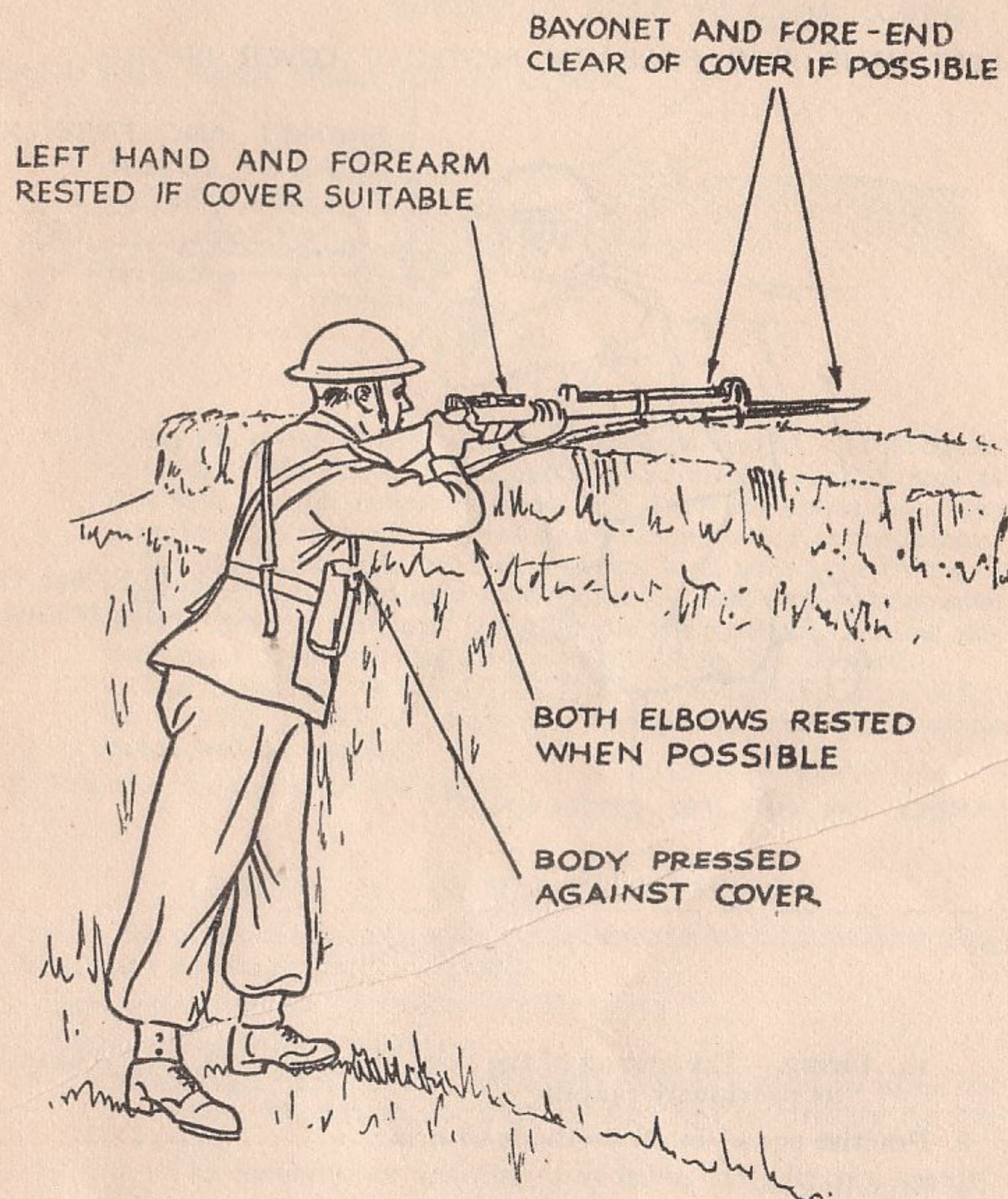


Fig 28

## 6. FIRING ROUND COVER.

Explain and Demonstrate :—

Firing round cover generally entails less exposure than firing over cover. Give examples such as trees, stumps, rocks, etc.

When firing round cover the right side of the cover is normally used.

ii. On the command "DOWN," act as already taught.

On the "Range" being ordered (or, if acting individually set the sights to the estimated range), set the sight and bring the rifle forward to the right side of the cover, adopting the "Position of Readiness," either standing, kneeling or lying, etc., according to the cover. Butt to be in the most convenient position. When lying behind Isolated Cover, the feet must be together to avoid unnecessary exposure. (See Fig. 29.)

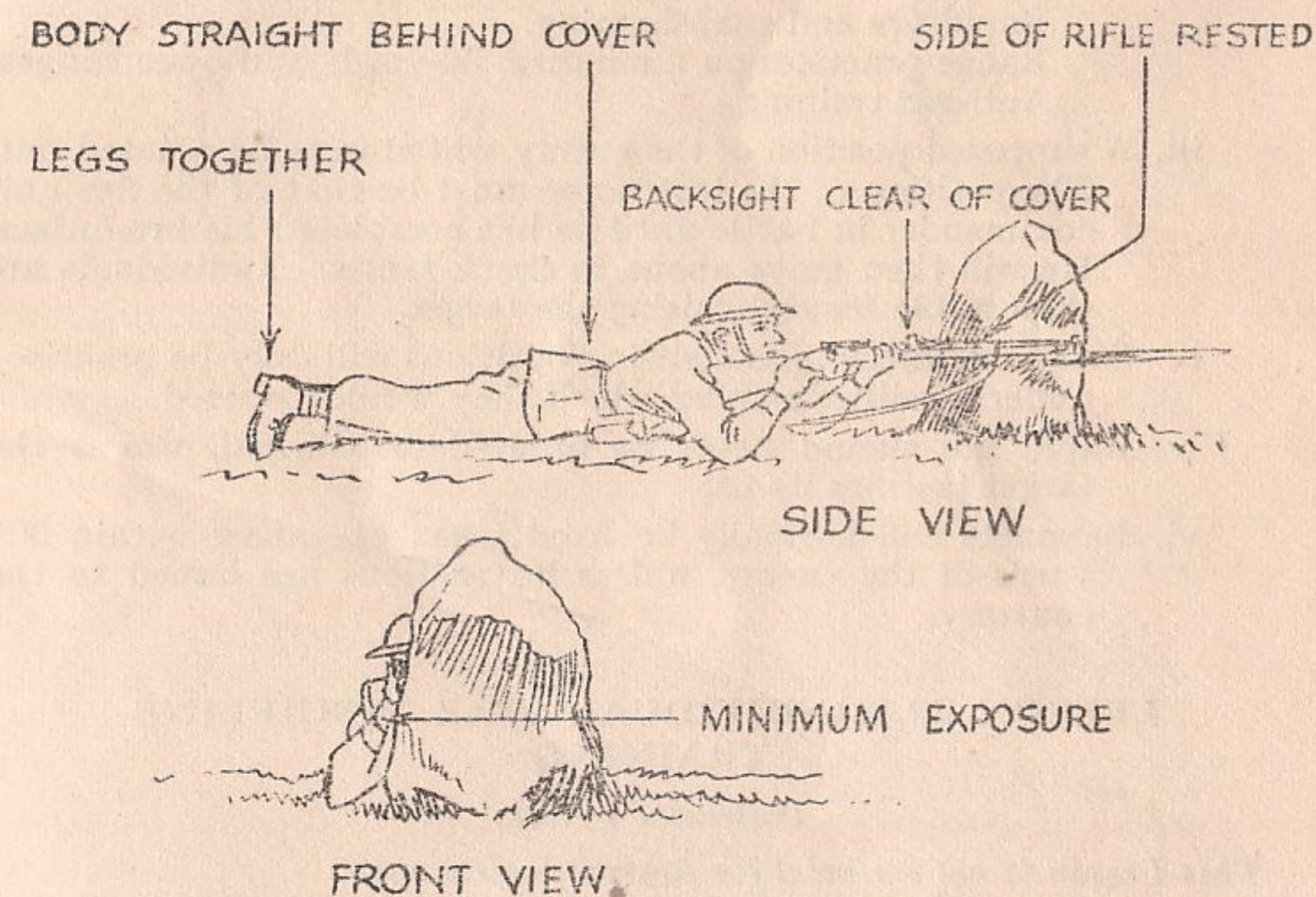


Fig. 29

iii. Firing.—If the butt is on the ground; bring the rifle to the aim on the targets being indicated. The left side of the rifle will be rested against the side of the cover with the backsight clear.

Methods of firing as already taught; except that, to avoid undue strain, the butt need not be kept in the shoulder between shots.

7. Practice squad.



## SECTION 4.—FIRE DISCIPLINE TRAINING

### 1. Object.

This subject will be introduced as soon as firing positions in the open and behind cover have been taught, with the object of producing rapid and accurate obedience to all orders and a correct and intelligent use of the rifle in all circumstances.

### 2. Method.

- i. The lesson in this subject must be repeated frequently. It may be carried out collectively although it is particularly for training the individual. It should consist of a simple exercise to teach accurate and quick obedience to fire orders, and to develop the accurate use of weapons.
- ii. The lesson will be given concurrently with other lessons in elementary training on which it is based, namely :—
  - Use of the rifle in the open and behind cover.
  - Visual training and recognition.
  - Judging distance.
  - Rapid fire and snapshooting.
  - Range practices on miniature, 30-yards and open ranges.
  - Anti-gas training.
- iii. A supposed position of the enemy will always be pointed out. The position of the instructor must be that of the fire unit commander in battle until he has completed his fire orders. He will then move about to check faults. Individuals are responsible for recognising the target.
- iv. Standing, kneeling and sitting positions will only be practised under conditions under which they would be used.
- v. Rapid fire should never be ordered or allowed, unless the target justifies its use.
- vi. Bayonets will normally be fixed when operating within 300 yards of the enemy, unless instructions are issued to the contrary.

## LESSON 22.—INDIVIDUAL FIRE DISCIPLINE TRAINING

### *Instructor's Notes*

*This Lesson is not essential for Recruit instruction.*

*(See above to find the stage at which this lesson should be introduced.)*

*The normal firing position will be lying, unless other orders are given.*

*Select a supposed enemy position at a suitable range. Extend squad.*

*As progress is made, each man will use existing cover and adapt this position to it.*

i. *At the halt (using drill cartridges).—Easy service aiming marks will be used and ranges given must be approximately correct.*

*Order "Load" and give a fire order.*

*Check squad, paying attention to the following points :—*

*Position adopted by the firer, quick manipulation of bolt, loading and buttoning of pouch.*

*Correct sight setting.*

*Recognition of targets.*

*Difference between rapid, slow and snapshooting.*

*Action on "Stop" and "Unload."*

*Alertness of the men in attending to fresh orders.*

*Count the number of rounds.*

### 2. *On the move (drill cartridges not used).*

Instructor, acting as Section Commander, indicates a general line of advance, orders "Halt," and gives suitable fire order. Orders "Stop" and explains action on further advance, *i.e.*, safety catch applied, heads down, cautious preparatory movement before getting up, rise together and advance quickly, maintenance of extension, get down quickly and remain still until further order received.

Orders "Prepare to Advance—Advance," etc.

Whenever a fire order has been completed, Instructor rises and checks actions of individuals.

### 3. Repeat 1 and 2 as necessary.



## TESTS OF ELEMENTARY TRAINING

(See S.A.T. Pamphlet 1.)

### GENERAL

There are nine tests. Of these, certain must be carried out by testing one man at a time, others may be carried out collectively and this should be done whenever possible.

During instruction in aiming and firing, the attention of recruits will be drawn to these tests, so that they will realise what standard will eventually be expected from them.

The final five-minute period at the end of lessons provides a means of quickening personnel to reach the required test standard.

It should be impressed on all personnel under instruction that ability to pass the tests correctly is the measure of their efficiency as "fighting men" with the rifle.

Particular attention will be paid to the correct firing positions before each test is begun.

**No. 1.—Adjustment of sights.**—Four distances will be named. The position of the individual being tested will be varied, *i.e.*, lying and kneeling in the open. Bayonet fixed, except for recruits.

Variations between distances ordered will not exceed 400 yards.

**Standard.**—Three correct adjustments out of four. Each within three seconds, time to be taken from the last sound of the range given to the moment when the slide is fixed.

**No. 2.—Aiming.\***—This test is carried out from aiming rests. Aims will be laid at:—

(a) Small target 200 yards (two aims).

(b) Fig. 3 silhouette 200 yards (two aims).

On the figure targets the aim will be considered correct if it is approximate to the centre of the target.

**Standard.**—Three aims correct out of four.

**No. 3.—Trigger pressing.**—Trigger pressing will be tested by means of the aim corrector (or aiming disc if qualified instructor, *see* pages 29 and 30, Sec. 3). Accuracy of aim and correct trigger pressure are essential. Drill cartridges will not be used.

**Standard.**—Three correct trigger pressures out of four.

**No. 4.—Aiming off.**—

The test will be carried out with rifles and aiming rests.

Men will be ordered to aim off one target's width right or left of a figure 3 target at 300 yards.

In checking, the aim will be considered correct if it is approximate to the centre of the auxiliary.

**Standard.**—Two correct aims out of three.

**Note.**—The test may be carried out on representative targets at 25 to 15 yards according to visibility and conditions.

**No. 5.—Snapshooting.**—The man is required to bring the rifle from the loading position to the shoulder, to align the sights on an

\*This test may be carried out on representative targets.

aiming disc\* held to the eye, to press the trigger and instantly reload in the shoulder. Unless these actions are completed, he will fail.

The time allowed from the order "Fire" until the trigger is pressed will be 4 seconds. For timing, a stop-watch or ordinary watch with a second hand will be used. Position—lying. Bayonet will not be fixed. Drill cartridges will not be used.

**Standard.**—Three out of four aims to be correct.

**No. 6.—Rapid Firing.**—This test will be carried out using cover. The firer will be in the "Position of Readiness" (bayonet fixed). On the command "Rapid—Fire" he will fire at an aiming disc held to the instructor's eye. The command "Stop" will be given after five rounds have been fired.

**Standard.**—Four out of five shots correct.

Time.—Twenty seconds from the command "Fire."

Drill cartridges will NOT be used.

**No. 7.—Firing positions behind cover.**—Bayonets fixed. Inspections in positions behind suitable cover. Those who make serious faults will fail.

**Note.**—Faults which would reduce accuracy of fire and cause unnecessary exposure to view, should be considered serious.

**No. 8.—Recognition.**—(To be carried out in the open whenever possible.)

The men being tested should each have an aiming rest.

The instructor will describe some suitable target.

The men aim their rifles at the point which they recognise from the description. Four targets will be indicated for every man tested and each method of indication (*see* Pamphlet No. 2) will be employed.

**Standard.**—Three out of four points described must be recognised.

**No. 9.—Grouping with Miniature Cartridge.**—Recruits should reach a 3-inch standard. (*See* Pamphlet No. 14.)

\*See Sec. 3, pages 29 and 30, for limitations on use of aiming disc. The aim corrector may be used in this test.



## APPENDIX I

### CARE OF RIFLE, No. 2, Mk. IV\* (.22 inch)

(For information of weapon training instructors and men in charge of miniature ranges only)

To preserve the high standard of accuracy necessary for training, by avoiding damage to the bore, the following instructions will be strictly obeyed.

1. One individual will be given charge of the rifles.
2. An armourer or instructor will inspect the rifles monthly.

#### Ammunition MK. I NR

3. **MK. I NR Ammunition** (see List of Changes in War Material, para. A.7307) leaves a deposit in the bore which protects it and prevents rust. This deposit must not be removed by cleaning or oiling the bore, except for inspection by an armourer or for examination to discover suspected inaccuracy from lead fouling. After such an inspection, the bore will be oiled until the rifle is again required for shooting, when it will be dried out in the ordinary way. The protective deposit is replaced by firing, and further cleaning is unnecessary.

Before **MK. I NR** ammunition is taken into general use, the bore must be cleaned by the method given below. No protection to the bore will be afforded if fouling from other ammunition is present.

- i. Pour four pints of clean boiling water through the bore.
- ii. Dry the bore immediately with flannelette until the patches come out clean.
- iii. Oil the bore with a  $\frac{3}{8}$ -inch strip of flannelette and dry it out before taking the rifle into use.

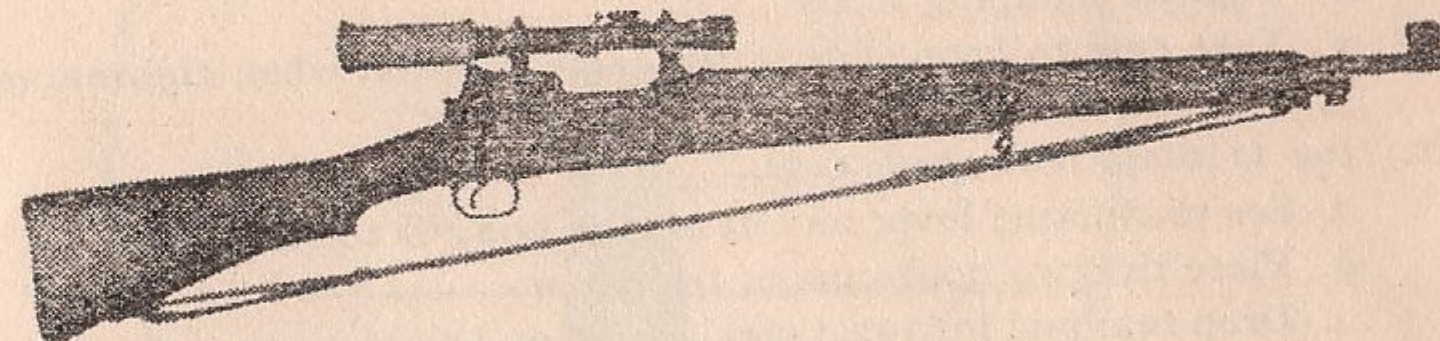
*All types of ammunition other than MK. I NR*

4. When types of ammunition other than **MK. I NR** are used, rifles will be cleaned as follows:—

- i. Fix the rifle in a vice or wooden holder.
- ii. Insert the cleaning rod from the breech end (bolt removed), to prevent bell mouthing of the muzzle.
- iii. Make sure that the rod, brush and cleaner are free from dust and grit and are not bent. Carelessness in this will damage the bore.
- iv. Clean the bore after firing 60 rounds (not oftener) unless firing Rapid, with the rod and cleaner with a strip of flannelette  $\frac{1}{2}$ -inch wide in the eye.
- v. After firing is finished for the day, clean the bore first with rod and brush, and then with the cleaner and flannelette, replacing the flannelette until it comes out clean. Oil the bore with a  $\frac{3}{8}$ -inch strip of flannelette.
- vi. Dry the bore before firing begins again.
- vii. Clean the brush frequently in paraffin to free it from fouling.

## APPENDIX II

### RIFLE No. 3 Mk. I.\*



This rifle (formerly known as the "Pattern '14 Enfield"—and when manufactured in .30-inch calibre for U.S.A. as "Model 17") differs radically from the normal service rifle (No. 1 Mk. III or III\*). When fitted with the required brackets to accommodate a telescopic sight, it is referred to as "Rifle No. 3 Mk. I\* (T)".

The bolt is of the "Mauser" type. No half cock.

A "leaf" aperture sight is fitted, operated by two spring catches, with a fine adjustment screw in the top of the leaf. A battle sight (up to 400 yards) is available when the leaf is lowered.

The trigger cannot be pressed when the bolt lever is not fully down. The safety catch is on the right side.

#### *To remove the bolt.*

Push forward the safety catch. Raise the bolt lever and draw the bolt back. Pull outwards the forward end of the bolt stop on the left of the body and withdraw the bolt.

#### *To replace the bolt.*

Ensure that the bolt plug is screwed home, that the tooth on the front end of the cocking-piece is engaged in the short groove on the end of the bolt, and that the extractor is in direct line with the solid lug on the right of the bolt.

Insert the bolt into the body, depress the magazine platform and press the bolt home, turning the bolt lever fully down.

The magazine holds five rounds only and is of the non-removable type, consequently the "alternative" method of unloading is not possible. The platform, when the magazine is empty, prevents the bolt from going forward. Removal of the platform and spring for cleaning purposes is possible, as follows:—

With the point of a bullet, depress the magazine catch and slide the bottom plate backwards. Lift out the components. Assemble in reverse order.

*Note.*—When using the Aim Corrector, it must be pressed well back on the butt.

#### "THE SNIPER'S RIFLE"

Rifle No. 3, Mk. I\* (T). Telescope pattern '18.  
Magnification of Telescope  $\times 3$ , Field of view  $7\frac{1}{2}^\circ$ .



1. *Method of focusing.*

- i. Loosen clamping screw.
- ii. Hold telescope steady—look through as in using ordinary telescope—with eye about 2 to 3 inches away—should have a full field of view.
- iii. Move focusing slide backward or forward until a clear view is obtained.
- iv. Tighten clamping screw.
- v. Take care to keep slide in the same position when tightening up clamping screw.

2. *How to attach telescope to rifle.*

- i. See that fixing lever on left of rifle body is to the rear.
- ii. Place the two hooks under trunnions.
- iii. Drop rear end into rectangular slot on left of body.
- iv. Turn lever over to front to engage.

3. *Method of loading with telescope attached.*

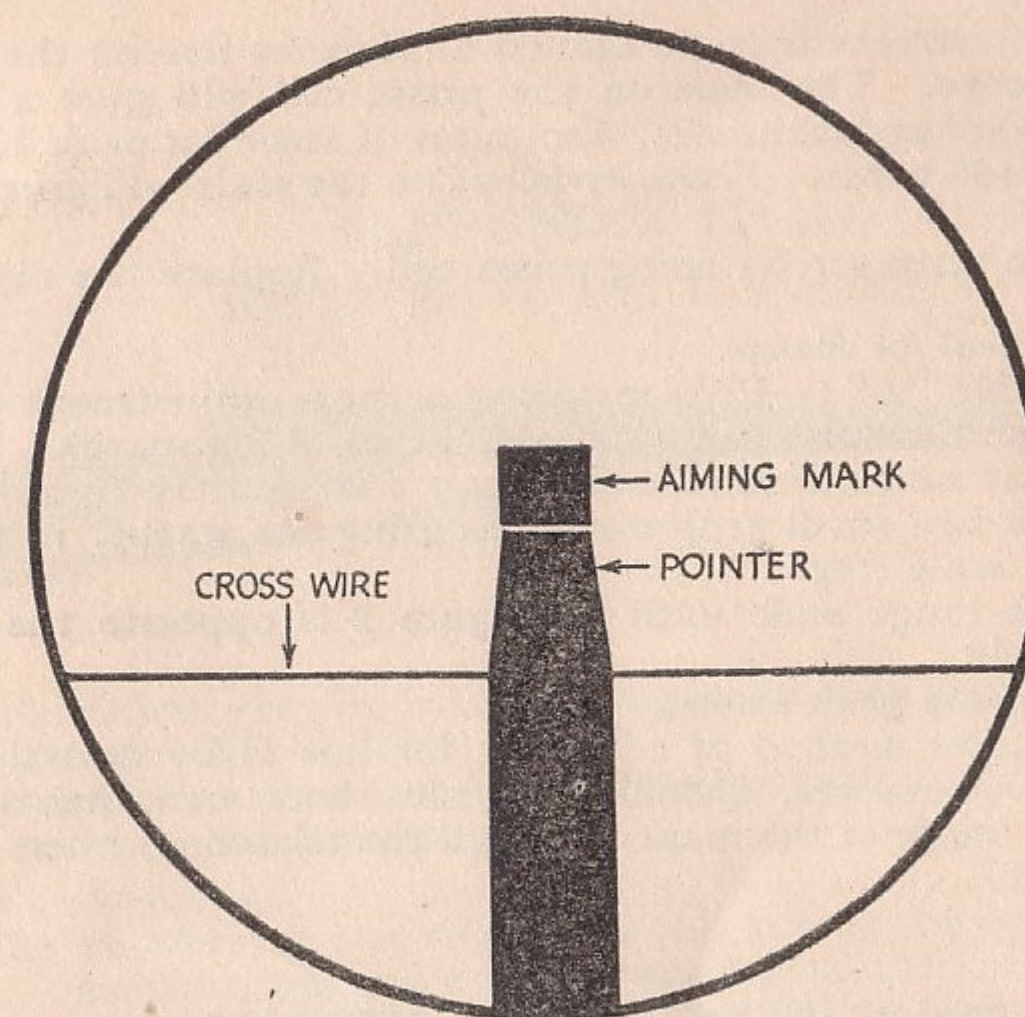
- i. Chargers cannot be used unless telescope is removed.
- ii. Load with 5 rounds singly.

4. *Adjustment of sight.*

- i. Explain markings and figures on range scale.
- ii. Loosen range drum clamping screw.
- iii. Turn range drum with thumb and forefinger until line required on range scale is opposite reference mark on saddle.
- iv. Tighten clamping screw.

5. *Method of aiming.*

- i. Use aiming and head rests.
- ii. Illustrate with large diagram, as under :—
- iii. Sights upright (cross wire a good guide when actually aiming).
- iv. Close disengaged eye.
- v. Eye about 2 to 3 inches away.  
A full field of view must be obtained. (If floating aperture is visible, the eye is either too near or too far away from telescope.)
- vi. The object aimed at to be balanced on top of pointer, the only part of sights visible. The centring of sight in aperture is automatic.



**CORRECT AIM AT ZEROING TARGET**

NOTE — EARLIER PATTERNS OF SIGHTS  
MAY HAVE A SHARP POINTER.

**How to adjust a telescope to a rifle and to an individual.**

There are three adjustments to be made :—

1. Focussing.
2. Adjustment for line (direction).
3. Adjustment for range.

The adjustments must be made in the above order as neither the line nor range adjustments can be effected unless the telescope is correctly focussed for the individual. Again, any line adjustment throws out the range adjustment.

1. *Focussing.*  
As in para. 1.

2. *Adjustment for Line.*

Effected by rotation of prism at front end of telescope. Remove the ray shade. Slacken the three screws fixing prism cell. Place the rifle in an aiming rest, or secure it firmly in sandbags. Remove the bolt. Attach the telescope to the rifle.

LOOKING THROUGH THE BORE, lay the rifle on any distinct mark. Look through the telescope and determine whether the image of the mark is correct for line.

Should the image have to be moved to the RIGHT—using the adjusting key, rotate the prism cell ANTI-CLOCKWISE (when looking at the cell from the front of the telescope) and *vice versa* if the image has to be moved to the LEFT.



*Note.*—Adjustment is made against a reference line on the front ring of the telescope. The scale on the prism cell will give a deflection (per division) of approximately 5 minutes of angle for each 100 yards = 5 inches per 100 yards. Flank divisions on the scale will give a reduced angle.

Adjust the three screws fixing prism cell. Replace the ray shade.

### 3. Adjustment for Range.

Example "A":—Rifle requiring a range adjustment of 300, to get correct shooting at a distance of 200 yards.

Ensure that range drum clamping screw is securely tightened.

Loosen the two small grub screws securing the washer in the centre of the range scale ring.

Rotate the range scale until the figure 2 is opposite the indicator line at the side.

Tighten up the grub screws.

An alternative method of adjusting for line is by actual shooting. In such circumstances, should the rifle shoot consistently to the RIGHT, the image of the mark (through the telescope) must be moved to the RIGHT.

### Example "B."

The group fired at 100 yards formed 5 inches low.

The following procedure will be carried out:—

- i. Unclamp the range drum clamping screw.
- ii. Set sight at 300 yards ( $2+3=5$  inches) and re-tighten the range drum clamping screw.
- iii. Fire another group.
- iv. If the group is correct for elevation do not loosen the range drum clamping screw, but loosen the small twin screws securing the washer in the centre of the range scale ring.
- v. Turn range scale ring until the scale is set to 100 yards.
- vi. Tighten up the twin screws.

### Example "C."

The group fired at 100 yards formed 9 inches high.

In this case proceed as follows:—

- i. See that the range drum clamping screw is securely tightened.
- ii. Calculate the distance on the range scale which will give the required drop on the target, *i.e.*, from 100–400 yards ( $2+3+4=9$  inches).
- iii. Loosen the twin screws securing the washer in the centre of the range scale ring.
- iv. Turn the range scale clockwise until the reading shows 400 yards.
- v. Tighten up the twin screws.
- vi. Loosen the range drum clamping screw and turn the range drum anti-clockwise until it reads 100 yards.
- vii. Re-tighten the range drum clamping screw.
- viii. Fire another group and, if error has not been completely corrected, repeat the procedure.

## APPENDIX III

### RIFLE No. 4 Mk. I. and I.\*



This rifle differs very little in general design from the normal service rifle (No. 1, Mk. III. or III.\*).

Two models have been produced, differing mainly in the method of sighting and bolt head control.

#### Notes for Instructors.

The number of the rifle is on the left of the body below the safety catch and on the lower side of the fore-end.

No cut-off fitted.

Removal and replacement of bolt different, and entail the use of both hands.

#### (a) Mk. I. RIFLE

##### To remove the bolt.

Having pushed forward the safety catch, raise the bolt lever and draw the bolt nearly fully back. Depress the bolt head catch and, keeping it depressed, draw the bolt fully back, push up the bolt head and withdraw the bolt.

##### To replace the bolt.

Ensure bolt head fully screwed up, etc., as for normal service rifle. Insert bolt, turn bolt head down, pressing it against the bolt head catch and at the same time push the bolt forward.

#### (b) Mk. I.\* RIFLE.

##### To remove the bolt.

Only draw the bolt back about half an inch (until it registers with a gap in the rib on the body). Push up the bolt head and withdraw bolt.

##### To replace the bolt.

As above until bolt is inserted. Turn the bolt head down after it has passed the charger guide, push the bolt forward until the bolt head registers over the gap in the rib on the body. Push down and forwards.

#### BACKSIGHTS.

#### (a) Mk. I. RIFLE.

Leaf backsight, carrying a slide operated by an adjusting screw. Clockwise rotation of the adjusting screw raises the slide. The slide has an aperture sight. The leaf is graduated from 200 to 1,300 yards in increments of 50 yards.

An aperture "battle sight" is provided on the rear face, for use when the leaf is down.



(b) *Mk. I.\* RIFLE.*

The backsight consists of a "flip" dual aperture battle sight, one marked "300," the other "600."

The following table will be used for instructing personnel in the method of sighting with this rifle:—

Range	Sight Set	Position of Point of Aim in relation to desired M.P.I.	
		Without Bayonet Fixed	With Bayonet Fixed
100-200 yds.	300 yds.	Aim down approx. 16 in.	Aim down approx. 8 in.
300 yds.	300 yds.	Aim down approx. 12 in.	M.P.I. correct
400 yds.	300 yds.	M.P.I. correct	Aim up approx. 16 in.
500 yds.	600 yds.	Aim down approx. 30 in.	Aim down approx. 10 in.
600 yds.	600 yds.	M.P.I. correct	Aim up approx. 24 in.

**BAYONET.**

Two types—early model is cruciform in section; the later model being circular. Both are fitted with a socket handle which assembles over the rifle muzzle; the socket has internal recesses which engage with lugs on the rifle muzzle.

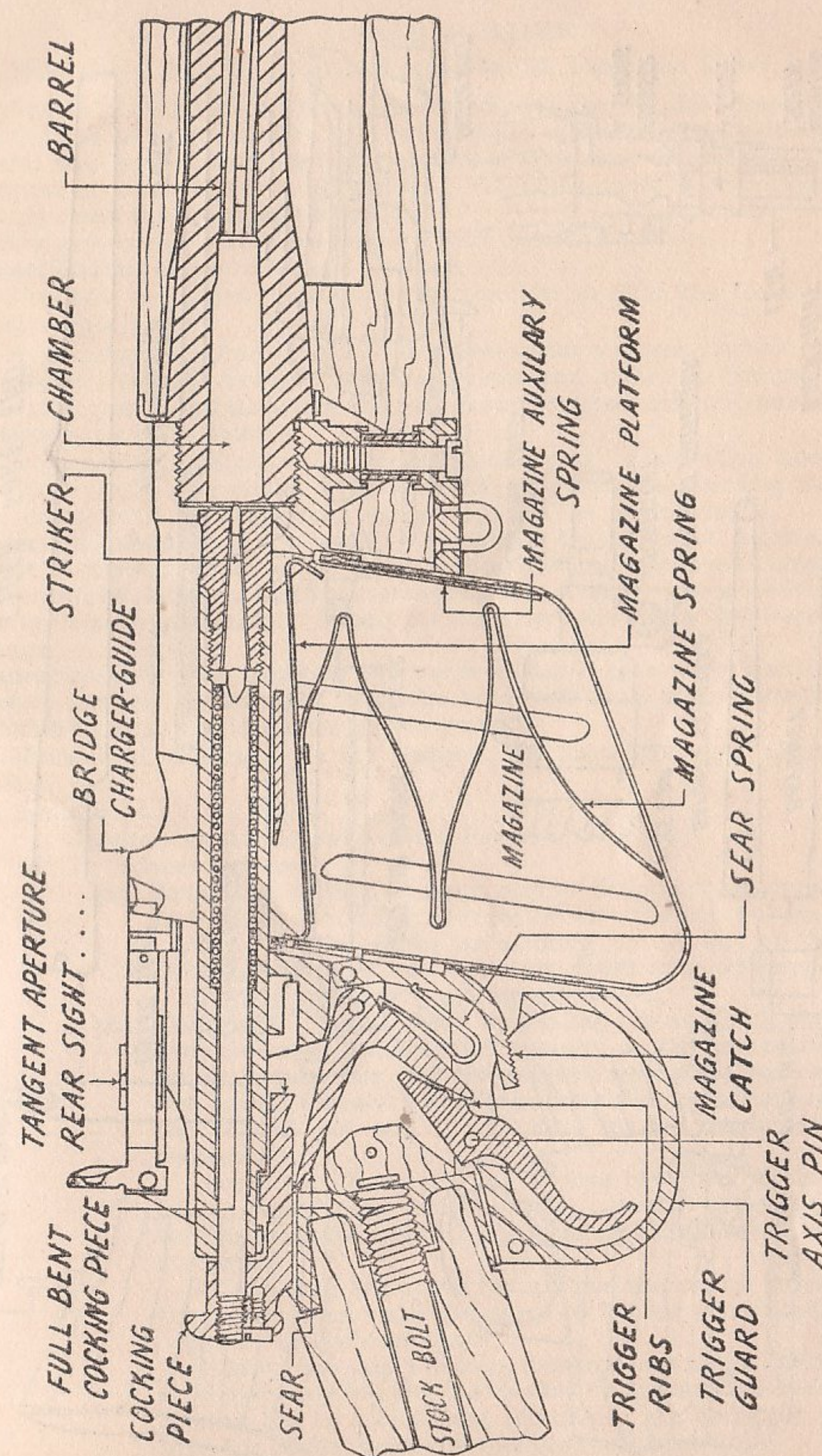
The blade of either type is approximately 9 inches in length.

**AIMING.**

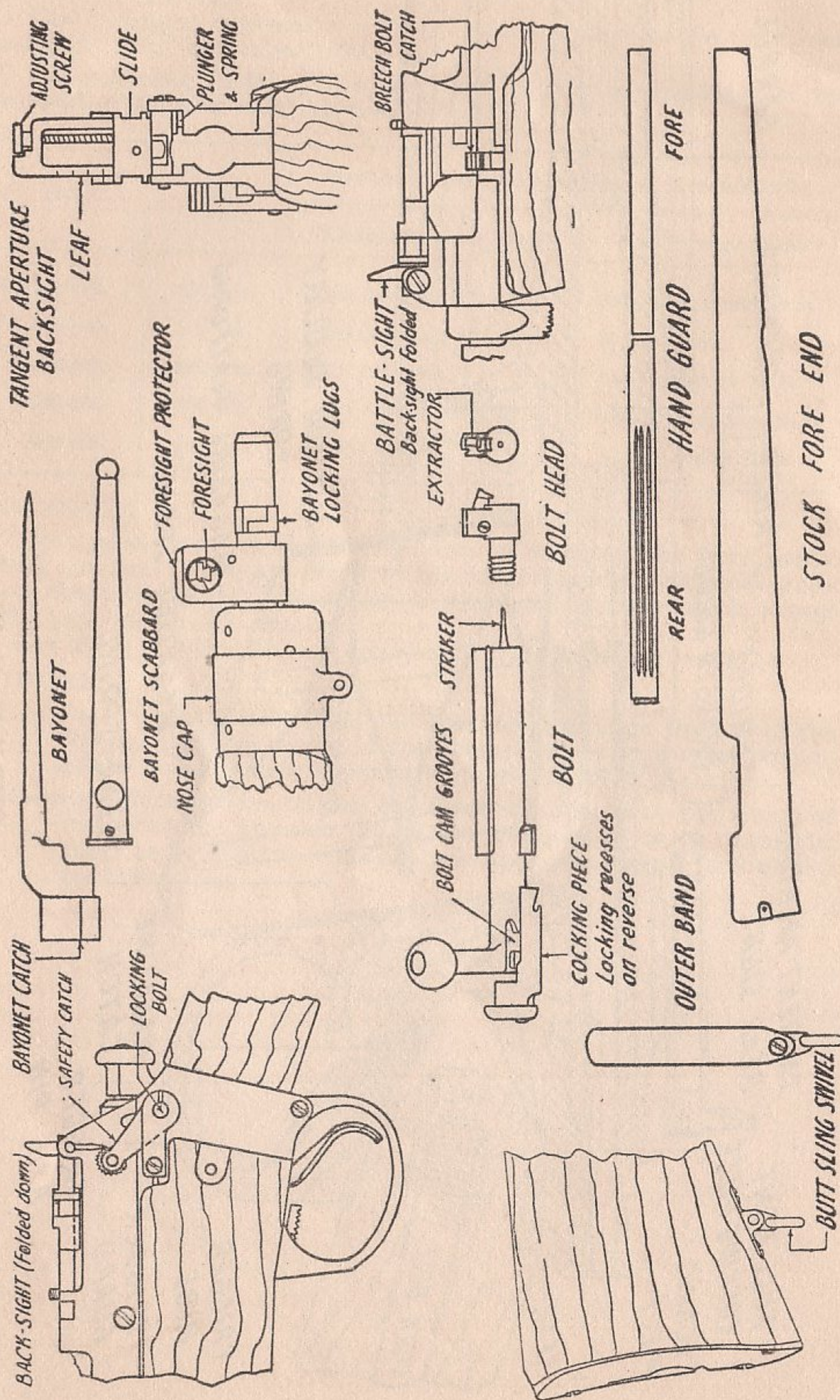
*3rd Rule.*—Look THROUGH the aperture and align the top of the foresight on the centre of the target (or lowest central portion of the aiming mark), keeping the aim central in the aperture.

*General.*—It must be clearly explained to men that the effect of removing the bayonet (alteration of "jump") is to cause the shots to go higher. This effect is approximately 1 foot at 200 and 300 yards.

... BREECH MECHANISM ...







DETAILS—RIFLE No. 4, MK. I

## THE No. 4 SNIPER RIFLE

(Rifle No. 4, Mk. I.\* (T) fitted with No. 32 Telescopic Sight)

1. General.—The No. 4 rifle can be fitted with the No. 32 telescopic sight for use as a sniper's rifle. It is fitted with a special sling, a cheek rest and two pads to take the sight. Packed with the rifle and sight is an adjusting tool and a polishing cloth. The cloth must be kept clean and only used for cleaning the lenses.

Sights are paired with rifles and are NOT interchangeable.

Magnification of the telescope is three.

2. Focusing.—Neither necessary nor possible to alter the focus of the telescopic sight.

3. Attaching telescope to rifle.—Remove telescope from its box by unscrewing the large-headed clamping screws and attach to the pads on the rifle, partially tightening the rear clamping screw first and finally screwing both fully home.

4. Adjustment of Sight.—Telescope is graduated for elevation from 0 to 1,000 yards, and can be adjusted in 50-yard clicks by turning the range drum until the required range is opposite the pointer mark.

Lateral adjustment is also possible by turning the deflection drum on the left of the telescope. This drum is graduated in minutes of angle in two-minute clicks up to 16 minutes each side of zero. (A minute of angle equals approximately 1 inch on the target for every 100 yards of range.)

Example.—If, when firing at 300 yards a shot is observed to strike 1 foot to the left of the mark, turn the deflection drum anti-clockwise 2 clicks=4 minutes=12 inches at 300 yards.

5. Method of Aiming.—As for Pattern '18 telescopic sight (Rifle No. 3).

6. Zeroing :—

i. General considerations—as for Pattern '18 sight.

ii. To adjust errors—

(a) First alter setting of range and/or deflection drums so as to bring the M.P.I. to coincide with the point of aim.

Note.—If the shots are striking to the left of the point of aim turn the deflection drum anti-clockwise ; if to the right, turn the drum clockwise.

(b) ELEVATION is adjusted by placing the adjusting tool over the range drum so that the slot on the end of the upper tommy bar and the projections on the base of the lower tommy bar engage with the projections on the central pin and in the slots in the clamp ring respectively.

Loosen the clamp ring by turning the lower tommy bar one-half turn anti-clockwise, at the same time holding both the upper tommy bar and the range drum stationary.

Still holding the upper tommy bar stationary, rotate the range drum until the range to the target is shown opposite the pointer mark.

Holding the upper tommy bar and the range drums stationary tighten the clamp ring by turning the lower tommy bar in a clockwise direction. An assistant to hold the range drum will facilitate adjustments.



- (c) DEFLECTION errors are eliminated by following the above procedure with the deflection drum, moving the drum until the figure 0 is opposite the pointer mark.

7. The special sling is made of leather with metal hooks, similar in design to that used in the U.S. Army. It consists of two portions—an upper part and a lower, the latter being much shorter than the former. When adjusted, it provides a "single arm sling" which assists shooting by keeping the rifle steady when cover is not available. Care should be taken, however, that the use of the sling (as above) in active operations, does not result in the firer being caught at a disadvantage and unable to use his rifle effectively in an emergency at close range.

*Notes.—*

1. No vertical or lateral error should ever be left on a sniper's rifle.
2. The M.P.I. at 100 yards should be the point of aim.
3. Zeroing should be carried out at 100 yards. General considerations as for Rifle No. 1.
4. Other details associated with Sniper Rifles and Telescopic sights will be found in Military Training Pamphlet No. 44.

APPENDIX IV.

DETAILS OF SERVICE RIFLES  
(For information of Instructors)

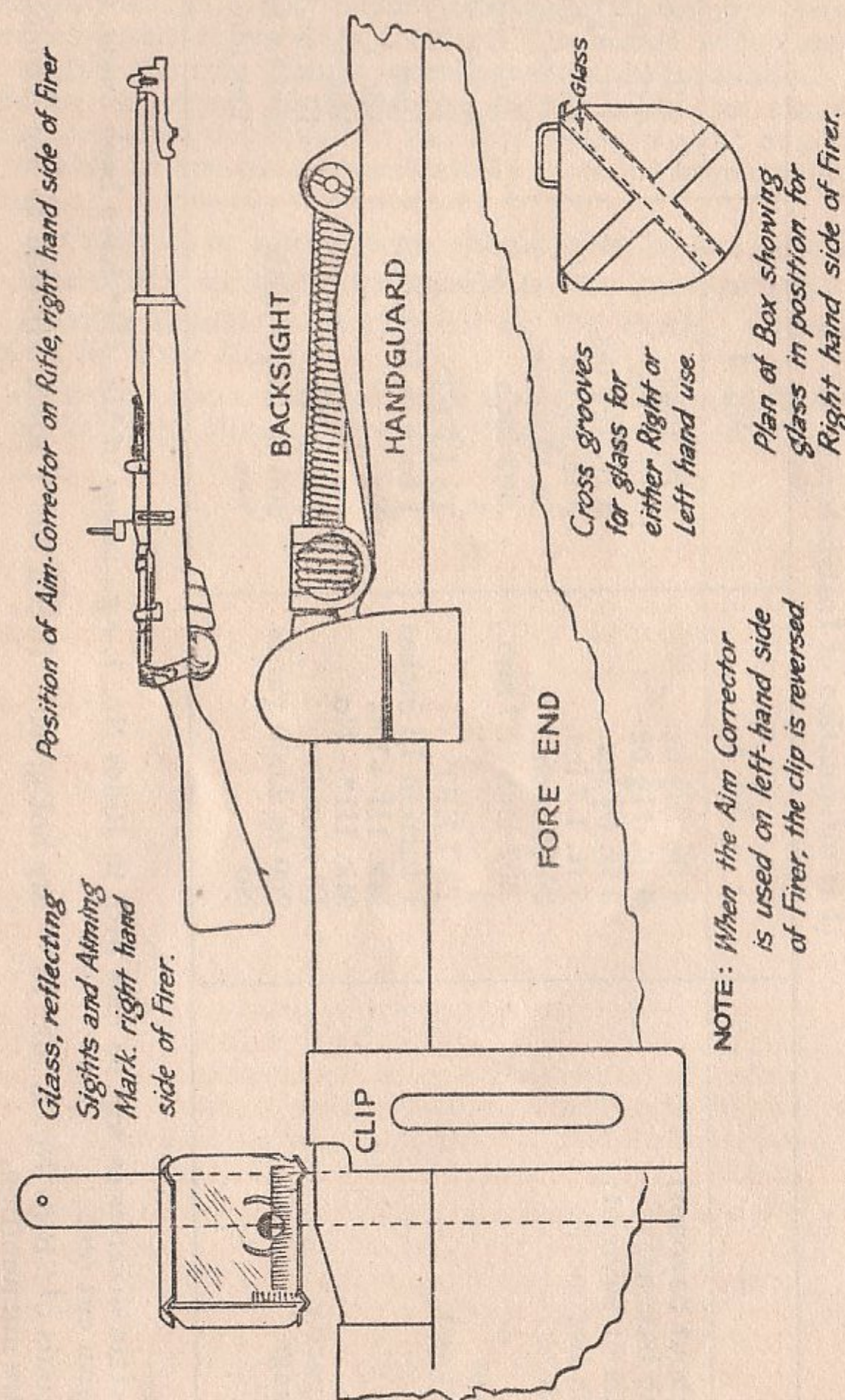
	No. 1	No. 3	No. 4
Weight (without bayonet)	8 lb. 10½ oz.	9 lb. 6 oz.	9 lb. 3 oz.
" (with bayonet)	9 lb. 11½ oz.	10 lb. 7 oz.	9 lb. 10 oz.
Length (without bayonet)	3 ft. 8½ ins.	3 ft. 10½ ins.	3 ft. 8½ ins.
" (with bayonet)	5 ft. 1.7 ins.	5 ft. 3¼ ins.	4 ft. 5 ins.
Barrel length	25.19 inches	25.19 inches	25.19 inches
Calibre	.303-inch (7.7 mm.)	.303-inch	.303-inch
No. of grooves	5	5	5 (See Note)
Direction of twist	To LEFT	To LEFT	To Left
Twist	1 turn in 10 inches	1 turn in 10 inches	(See Note)
Cut Off	Mk. III—Yes Mk. III*—No	No	Mk. I—No Mk. I*—No
Magazine capacity	10 rounds	5 rounds	10 rounds
Backsight range	200 to 2,000 yards	200 to 1,600 yards	200 to 1,300 yards
Battle sight	No	Yes	Yes (on one type)

NOTES:—

1. Certain differences will be met with in Rifles No. 1, e.g., issues of Mk. III\* have been made, fitted with cut offs.
2. Details of "Rifle No. 2, Mk. IV\*" are not given. It is a No. 1 Rifle, adjusted to fire .22-inch rim fire ammunition.
3. Rifle No. 4 is the mass production Enfield. Normally, it will have five grooves, but certain issues have been made with two grooves only during the war period.



## APPENDIX V



THE AIM CORRECTOR No. 1, MK. 11 (S.M.L.E.)

## APPENDIX VI

### QUICKENING AND STRENGTHENING EXERCISES.

1. These provide a means of quickening men in handling the rifle, and also of strengthening those muscles used in holding and firing it.
2. They should be carried out, for the last few minutes of firing lessons whenever possible. They are also suitable for the daily weapon training period with trained soldiers.
3. The instructor should use his own discretion in framing these exercises; some suitable ones are given as a guide.
4. The men should be told the object of quickening and strengthening exercises (as in para. 1) and a spirit of competition introduced. Except for recruits, bayonets will normally be fixed.

### 5. QUICKENING EXERCISES.

- i. *Quick loading and unloading.*—Orders by instructor:—  
“On the command ‘Go’ see who is the first man under cover and loaded with ten rounds—‘Go’.  
“200—Aim. On the order ‘reload’ open and close breech quickly and take first pressure again.”  
Give order “reload” nine times followed by “load”.
- ii. Any variation to this exercise may be used at instructor’s discretion.

### 6. STRENGTHENING EXERCISES.

NOTE.—These should be carried out in the open without the use of cover in order to obtain the maximum benefit.

- i. *Gripping.*—Practise squad in holding rifle into the shoulder with one hand in any firing position. Instructor gives order to get squad into a firing position and then gives order “right hand off”—“change hands”—repeat as necessary. To finish, “both hands on”—“unload”.
- ii. *Quick lift.*—Instructor gives the command “load” followed by a sight adjustment. On the command “up” the squad bring their rifles quickly into the shoulder, take the first pressure and roughly align the sights on a suitable target, then lowering their rifles to the ground. The commands “up” and “down” may both be given if necessary to speed up movements.



# SCALE OF DISTRIBUTION Small Arms Training. Pamphlet 3—Rifle.

L.H.Q.—				ENGRS.—			
"G" Branch .. ..	35			H.Q. R.A.E. Army ..	}	each	5
"A" Branch .. ..	15			H.Q. R.A.E. Corps ..			
"Q" Branch .. ..	25			H.Q. R.A.E. Div. ..			
"O" Branch .. ..	35			H.Q. R.A.E. Force ..			
Adv. L.H.Q. .. ..	20			Fd. Sqn. .. ..	}	each	5
H.Q. Army .. ..	10			Fd. Pk. Sqn. .. ..			
H.Q. Corps .. ..	}	each	5	Fd. Coy. .. ..			
H.Q. Force .. ..				Fd. Pk. Coy. .. ..			
H.Q. Div. .. ..				Army Fd. Coy. .. ..			
H.Q. L. of C. Area .. ..	50			Corps Fd. Pk. Coy. ..	}		
R.A.A.F. .. ..	1,000			Camflg. Trg. Unit .. ..			
Aust. Movt. Control Gp.	}	each	1	Fd. Svy. Depots .. ..			1
Docks Control Det.				Fd. Svy. Coy. .. ..		5	
Army Sec. Int. Corps				Fd. Svy. Sec. .. ..		3	
Corps Sec. Int. Corps				C.E. Wks. .. ..	}	each	1
Div. Sec. Int. Corps				C.R.E. Wks. .. ..			
Force Sec. Int. Corps	D.C.R.E. Wks. .. ..						
CAV.—				A. Tps. Coy. .. ..	}	each	5
H.Q. Armd. Div. .. ..	}	each	5	Wkshop. and Pk. Coy. ..			
H.Q. Aust. Mot. Bde. ..				Mechanical Equipment Coy. ..	2		
H.Q. Aust. Armd. Bde. ..							
H.Q. Aust. Army Tk. Bde. ..							
Cav. Regt. .. ..	}	each	33	SIGS.—			
Mot. Regt. .. ..				Sigs. Army .. ..	}	each	5
Armd. Regt. .. ..				Sigs. Corps .. ..			
Army Tk. Bn. .. ..				Sigs. Div. .. ..			
	Sigs. Armd. Div. .. ..						
ARTY.—				Sigs. Force .. ..	}		
H.Q. R.A.A. Army .. ..	}	each	5	H.Q. Aust. Spec. Wireless Gp. ..			
H.Q. R.A.A. Corps .. ..				L.H.Q. Hy. Wireless Gp. ..	10		
H.Q. R.A.A. Div. .. ..				Aust. Line Sec. .. ..	}	each	1
H.Q. R.A.A. Force .. ..				Aust. Ops. Sec. .. ..			
Fd. Regt. .. ..	Aust. Telegraph Ops. ..						
Army Fd. Regt. .. ..	Aust. Switchboard Sec. ..						
A.Tk. Regt. .. ..	Aust. Wireless Sec. .. ..						
Med. Regt. .. ..	Aust. Constn. Sec. .. ..						
Lt. A.A. Regt. .. ..	Aust. Tech. Maint. Sec. ..						
Hy. A.A. Regt. .. ..	Aust. Tech. Line Sec. ..						
A.Tk. Bty. .. ..	Aust. D.R. Sec. .. ..	}					
F. Sp. Bty. .. ..	Beach Sig. Sec. .. ..						
Fd. Bty. .. ..	A.S. Control .. ..						
Svy. Bty. .. ..							
Mountain Bty. .. ..							

# SCALE OF DISTRIBUTION—Continued

INF.			MISC.—			
H.Q. Aust. Inf. Bde.	..	10	Salvage Unit	..	1	
Aust. Inf. Bn.	..	33	L. of C. Area G.D.D.	..	10	
Force Inf. Coy.	..	5	L. of C. Area R.R.D.	..	50	
M.U.R.	..	1	Leave Transit Camps	..	5	
S.U.R.	..	1	A.R.Ds.	..	20	
Force Indep. Mortar Pl.	..	1	Independent Coys.	..	20	
M.G. Bn.	..	each 33	L.H.Q. Def. Coys.	..	5	
Pnr. Bn.	..		Def. & Emp. Pls.	..	5	
Grn. Bn. I.C.	..		TRAINING DEPOTS—			
Grn. Bn. C.D.	..		One per Instructor			
Grn. Bn. P.W.	..		SCHOOLS—			
Grn. Bn. I.S.	..	6	R.M.C. & S.S.	..	150	
Grn. Coy.	..		S.A.S.	..	200	
H.Q. Gd. Bn.	..		S. of M.I.	..	5	
S. & T.—			S. of Radiophysics	..	5	
H.Q. Comd. Army Tps.	each 5		H.Q. Comd. Corps Tps.	S. of Arty. Fd. Med. & Svy.	..	25
H.Q. Comd. Div. Tps.		H.Q. Comd. Armd. Div. Tps	S. of Arty. A.A.	..	25	
H.Q. Comd. Armd. Div. Tps		H.Q. Comd. Force Tps.	S. of Arty. A.Tk.	..	25	
H.Q. Comd. Corps Tpt. Coln.		H.Q. Comd. Central Aust. Tpt. Coln.	A.F.V. School	..	25	
H.Q. Comd. Central Aust. Tpt. Coln.		..	S. of M.E. Frt.	..	5	
Gen. Tpt. Coy.	..	10	S. of M.E. Fd.	..	5	
Aust. Coy. A.A.S.C.	..	20	Army Bomb Disposal	..	5	
Army Tk. Bde. Coy.	..	12	School of Sigs.	..	50	
D.I.D.	..	1	O.C.T.U.	..	200	
Water Carrying Coy.	..	5	L.H.Q. Tactical School	..	5	
C.T. Amn. Coy.	each 10	10	Inf. Trg. Centre (J.W.)	..	100	
C.T. Pet. Coy			Gas School	..	5	
C.T. Sup. Coy.			P. & R.T. School	..	5	
Aux. H.T. Depots	..	5	A.A.S.C. School	..	5	
Sup. Per. Coy.	..	20	A.A.O.C. School	..	5	
ORD. L.H.Q. Car. Coy.	..	3	A.E.M.E. School	..	5	
Aust. Ord. Store Coy.	each 1	1	School of Mech.	..	5	
Aust. Wkshop A.E.M.E.			Pro.	..	5	
Aust. Ord. Amn. Coy.			Junior Leaders' School	..	50	
Adv. Wkshop A.E.M.E.			Army Schools Bulk	..	100	
Aust. Ord. Fd. Pk.			Corps Schools	..	50	
L.A.Ds.	..	..	Force Schools	..	50	
			Group 244 (Army)	..	50	





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